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ABSTRACT

This volume contains the technical paper prepared by the Department of Health, Education and Welfare (DHEW) to give additional data and a more detailed analysis of materials used to study the impact of the Federal Interagency Day Care Requirements (FIDCR) on children in day care. This impact study was part of a larger project to investigate two questions: Is the Federal regulation of day care financed under Title XX appropriate? Are the specific requirements for day care now imposed under Title XX appropriate? This volume's seven chapters concern grouping of children, caregiver qualifications, educational services, environmental standards, nutrition, health, and parent involvement. Also provided are 40 pages of bibliographic references and a 17-page glossary of terms. Appendices include an executive summary of the Report on the Appropriateness of the FIDCR; Report of Findings and Recommendations; the text of the FIDCR; and a legislative history of the FIDCR. (Author/DB)

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The Appropriateness of the Federal Interagency Day Care Requirements . . .

TECHNICAL PAPER 1:

THE IMPACT OF THE FIDCR ON CHILDREN, FAMILIES AND CHILDCARE PROVIDERS

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PS 011391

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
OFFICE OF ASSISTANT SECRETARY FOR
PLANNING AND EVALUATION

THE IMPACT OF THE FEDERAL INTERAGENCY DAY CARE REQUIREMENTS ON CHILDREN, FAMILIES AND CHILD CARE PROVIDERS

By

Lucy Conboy

January 1980

U.S. Department of
Health, Education, and Welfare

Office of the Assistant Secretary for
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PREFACE

In June 1978 the Secretary of the Department of Health, Education and Welfare transmitted to Congress the "Report on the Appropriateness of the Federal Interagency Day Care Requirements (FIDCR): Report of Findings and Recommendations", pursuant to the provisions of the Social Services Amendments of 1974 (Public Law 93-647).

The mandate contained in Section 2002 (a) (9) (B) of Title XX of the Social Security Act required the Secretary to submit to Congress "an evaluation of the appropriateness of the requirements...together with any recommendations he may have for modifications of those requirements."

Definition of the word "appropriateness" was not provided by Congress in P.L. 93-647 nor were criteria by which the appropriateness of the FIDCR might be evaluated. In developing its approach to the preparation of the report, therefore, the Department looked to the congressional background of the intents and goals of Title XX and the FIDCR.

The Department decided that the report should attempt to answer two fundamental questions:

1. Is the Federal regulation of day care financed under Title XX appropriate?

2. Are the specific requirements now imposed appropriate?

In answering those questions the Department analyzed data and issues along three parallel lines of inquiry: the impact of the FIDCR on children, families and providers, examined in Chapter 2; the costs of imposing the FIDCR, analyzed in Chapter 3; and the administration of the FIDCR at all levels of government, discussed in Chapter 4.

At the time of transmittal the Department declared its intention to publish three technical papers to expand on these three major topics.

The present volume contains the technical paper prepared to give additional data and more detailed analysis of the materials in Chapter 2 of the report, "The Impact of the FIDCR on Children in Day Care".

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INTRODUCTION

The Federal Interagency Day Care Requirements (FIDCR) consist of nine components: 1) staff/child ratio, group size and age mix in various types of day care facilities, 2) training of staff, 3) educational services, 4) environmental standards, 5) social services, 6) health and nutritional services, 7) parent involvement, 8) administration and coordination, and 9) evaluation. The purpose of this paper is to discuss the impact of these nine components of the Federal Interagency Day Care Requirements on children, families and care providers in order to assess the appropriateness or validity of these requirements.

Ideally, where such an evaluation is to be made, both the program itself and the criteria for judging its success are sufficiently well-defined to permit reasonably precise comparisons of program intentions and results. Unfortunately, such "scientific" assessments are rarely possible for real-world social programs. The array of potential variables is almost always so great and the existing circumstances so difficult to control that evaluations are inevitably inexact. Typical is the comment of one administrator responsible for program planning and evaluation who was quoted in a recent article on evaluation research as saying, "We might as well be candid: federal program evaluations so far have been largely ineffective." (Rein and White, 1977). Evaluation problems have been especially severe in the case of programs for young children. After an extended examination of the indicies available for evaluating federal programs for young children in the areas of preschool and primary school education, day care, family intervention, health care, income and housing, for example, White, et al., (1973) concluded that virtually no program in these areas is evaluable, except for selected aspects. This is true, White concluded, partly because policymakers fail to specify program objectives concretely enough and partly because the measuring techniques and other tools of social science are too undeveloped.

Beyond the general problems faced by evaluators in virtually all social programs, there are particular problems where day care and the FIDCR are concerned. There is no reliable assessment of the degree of compliance with each provision of FIDCR in all states. More than a few provisions of the FIDCR, as well as the criteria to be used for determining expected levels of outcomes, are not well defined. And the federal day care legislation authorizing programs covered by the FIDCR embodies a diverse mixture of public policies and goals, some of them not entirely compatible with one another.

Some Federal legislation focuses on supporting the family; AFDC funds, for example, were intended to help female heads of one-parent households stay at home to care for their children. Other legislation aims at broader societal goals which may sometimes work at cross purposes with the AFDC program. For example, one Congressional intent reflected in Title XX is that special efforts be made to employ welfare mothers; thus compelling the use of surrogate child care. The Federal Interagency Day Care Requirements reflect this situation. The education component of the FIDCR was shaped by the principles underlying the compensatory education component of Head Start, which attempts to maximize the potential of economically and culturally deprived children whose environments would otherwise cripple their development. Other sections of the FIDCR focus on levels of care sufficient to protect against physical or psychological harm but not necessarily sufficient to foster positive development.

As a result of these ambiguities, a basic prerequisite of evaluation — sufficient precision in both program and goals to allow assessment — is to a considerable degree not present so far as the FIDCR is concerned. To gather together a series of studies which look at child, caregiver and parent outcomes in day care situations covered by federal standards and to compare these outcomes with a predetermined set of outcomes is not possible with respect to most provisions of the FIDCR.

If the FIDCR cannot be tested directly with laboratory precision, the appropriateness of the provisions can nonetheless be assessed in other ways. The results of recent research in the field of day care and related areas can be reviewed, analyzed, and synthesized in an effort to determine what the developmental impacts of various components of day care programs are likely to be for children, families or caregivers. Most such research was not designed specifically to evaluate the impact of the FIDCR, but the variables being studied in many instances are closely related to the FIDCR components and can contribute to an understanding of their potential impact. Gathering a consensus of expert opinion on various day care issues can also offer perspectives on the FIDCR's appropriateness. Both a survey of existing research and an assessment of expert opinion have been undertaken. The results are reported in this paper.

Such an approach to the evaluation of appropriateness is not without drawbacks, however. For policy purposes, findings of the studies considered ought to be generalizable to the day care population to which the FIDCR standards are applied. Unfortunately, a number of factors in the available research create problems when extrapolation is attempted. For one thing, the so-called "creme de la creme" phenomenon — the studying of highly unrepresentative samples — is exceedingly common in day care research. Research and demonstration projects are often university based, have a great deal of expertise associated with them, involve a unique "espirit" among the staff, and commonly have no more than two or three children per caregiver; they are hardly "typical" day care programs. Poor quality day care is almost never studied. Nevertheless, the findings from these special projects can highlight the variables that appear to be of major importance and thus shed light on the appropriateness of the FIDCR.

A second complication in extrapolation from existing research to the FIDCR is that, until the last 15 years almost no child development research was done in day care settings. Until comparatively recently, most studies, focused on maternal child attachment, children reared in institutions or other severely deprived settings, and animal development. Also, for many years, very little attention was paid to the developing infant. Thus, for purposes of this report many studies were examined which were not day care studies per se, but rather were studies which focused on related issues. From the large body of child development and early childhood education literature, studies were identified in areas such as mother/child attachment, parent training and preschool (non-day care) intervention projects. Under certain research conditions, one can see a ready transferability of conclusions to federally regulated day care. Under other conditions, direct extrapolation may be more difficult.

A final issue regarding generalization arises from the fact that the relevant studies located involved small — often non random samples which do not allow generalization of findings to larger populations. Thus, in assessing existing research, one must keep in mind that small samples may yield findings which are substantively important though the numbers of children involved may not be sufficient to allow statistical significance. When a day care study based on a very small sample fails to find a significant effect, that does not necessarily mean the effect does not exist, and would not appear given a larger sample. Of course, the reverse may also be true: studies of small groups of children may suggest conclusions that are transitory or less important than they seemed. Evaluation and extrapolation to FIDCR must be made with care.

A finding which is both statistically significant and substantively important may nontheless be of short duration. The converse of this statement is also possible. A "sleeper" effect may not show up until well after the treatment is applied. Few longitudunal studies have been attempted to assess this phenomena. Therefore, almost no projections can be made about what behaviors at specific ages in a specific environment will predict later behaviors in a given environment.

Additional problems which have been encountered in some of the studies examined: many yield findings which are difficult to interpret because the design variables are not adequately described; statistical techniques employed may be unsound or unsophisticated; negative findings—which in fact are in important source of information — are rarely reported; few studies have been replicated and the criterion measures employed are often too crude to detect any real differences among groups or to assess development especially of infants. The latter problem -- the seriously underdeveloped state-of-the-art of measurement techniques — has hampered all social science research attempts at assessing the impact of day care on children and providers.

Even with all these difficulties, the examination of existing research and the gathering of expert opinions has proved to be extremely fruitful. Indeed some of the problems described above are not always so troublesome as they seem. For example, some of the day care components regulated by the FIDCR have a well understood impact, independent of context, — good nutrition, for example. Second, some variables have been studied extensively enough in other contexts and for enough different age groups to permit at least limited transferability. Third, some day care research, though not designed to test the appropriateness of the FIDCR, happens to approximate what such an evaluation would be. Fourth, as the arch-experimenter himself has stated, there are other ways of knowing than through experiment (Campbell, 1975). Close familiarity with real life day care situations may sometimes yield insights which are superior to those offered by the systematic research available now.

Complementing these research findings and expert opinions are the preliminary findings from two major day care studies—one of which has three important substudies—currently in progress. They are financed by the Administration for Children, Youth, and Families (ACYF) in HEW. The studies examine specific FIDCR policy variables, particularly those related to staffing and group composition. Brief descriptions of the studies follow.

- The National Day Care Study (NDCS) is a 4-year study of center-based preschool day care. It was begun in 1974 and is scheduled for completion in 1978. As of January 1978, study staff had observed and tested 1,800 children, interviewed 1,100 parents, observed and interviewed caregivers in 120 classroom groups, and gathered program and cost data from 57 centers in Atlanta, Ga.; Detroit, Mich.; and Seattle, Wash. The preliminary findings of the NDCS address the controversial issue of whether day care center characteristics that can be controlled by Federal regulation make a meaningful difference for children. The NDCS has three major substudies:

  -- The NDCS Cost-Effects Study, which seeks to determine the impact of variations in child-staff ratio, group size, staff qualifications, and other center characteristics (e.g., educational program, physical facility) both on the development of preschool children and on the cost of the center.

- The NDCS Infant Day Care Study, which examines day care center arrangements currently available for children under the age of 3. The study focuses primarily on issues related to group composition and staff qualifications.

- The NDCS Supply Study, which is a national survey of more that 3,000 directors in a stratified random sample of day care centers. The study describes variations in programs, staff, and finances and demographic mixes of children across States and types of centers. The survey data are being used to extrapolate the national implications of the NDCS cost-effects analyses and to develop an econometric model of the impact of the day care market of Federal regulations, financing policies, and monitoring practices.

- The National Day Care Home Study is a multifaceted, multiphase investigation of family day care homes in a variety of natural settings. It will be completed in 1979. The study is based on interviews with caregivers and parents and on observations of caregivers and children. It is expected to provide descriptive profiles of three structurally distinct types of family day care homes: unlicensed homes operating independent of the regulatory system; licensed homes operating within a formal regulatory system; and sponsored homes operating as part of a network of homes under the administrative auspices of a sponsoring agency.

The preliminary findings of the National Day Care Study and its three substudies constitute only a small part of the analysis planned. Further analysis is needed to expand and refine these findings. As with any study of this magnitude, a critical review by analysts not directly involved in the studies is recommended to confirm the validity of the findings and their generalizability. The studies and findings have already undergone much scrutiny by peer review panels. The preliminary findings have been included in this paper because they sketch as clearly and responsibly as possible the picture that has emerged thus far of the elements that contribute to the quality of day care experiences.

HOW STUDIES WERE REVIEWED AND EXPERT OPINION WEIGHED

The analysis and synthesis of the research and evaluation studies involved the following: each available study was examined to determine the chronological age of the subjects, the number of subjects in each group, socio-economic status of the subjects, the organizational structure of the program (how children were assigned to caregivers, quality of caregivers and the general philosophy of the programs including whether the programs were family or center based.)

The analytic framework guiding the review of the research literature asked the following three questions:

(1) How strong is the observed relationship between policy variables (characteristics of child care facilities which are regulated) and outcomes (cognitive, physical, social and emotional behavior of children and caregivers?) An attempt was made not merely to establish the existence and direction of a relationship, but also the size of the relationship. At times existence and direction were the most that could be identified.

(2) How much of the observed relationship between a given policy and outcome is a spurious by-product of the fact that the policy in question depends on causally prior variables (social class of the children) that also affect the outcome or that interact with the policy in affecting the outcome?

(3) What are the mechanisms by which a given policy variable exerts its influence on particular outcomes? In the multivariate analysis sense, one attempts to identify all the relevant intervening variables (caregiver behavior, adult/child interaction) and measure them correctly.

When divergent findings were reported, the research procedures were examined to identify and explain the possible reasons for the differences. Some of these reasons were: 1) different sample population (disadvantaged children vs. middle class children), sample design, multiple indications which were slightly different in meaning, idiosyncrosies of particular measurement instruments and response bias.

Finally, while the traditional canons of scientific research are relatively straight-forward, the canons of "seasoned intuition" or "expert opinion" are not. In much of the day care literature, for instance, hypotheses or conclusions are not supported directly by systematic evidence. The standard used in evaluating this information and synthesizing it with the more systematic evidence was a reasonable rule of thumb that a hypothesis is at least tentatively supported if there is no systematic evidence against it and if a number of experienced observers believe it is true. Arguments were also evaluated by the thoroughness of the logic employed, and the extent to which underlying assumptions were consistent with evidence in related fields. Where expert opinion provides divergent answers to the same question that will be acknowledged, along with the competing claims.

One comment concerning the age range of studies available for this analysis. Infancy and toddlerhood, the early childhood years, and school-age years have received differential attention from developmental psychology. There are large gaps in the research data for various age groups. This leads to the problem of generalizing findings across age categories. For example, a finding of the importance of caregiver stability in infant care does not mean that that factor has the same impact (or any) for school-aged children. Occasionally studies may examine the interaction of age of child with the treatment variable, but this is clearly the unusual case.

A major focus of this paper then is to provide empirical evidence and a consensus of expert opinion to assist policy makers in specifying standards for day care that, insofar as possible support the well-being of children in federally funded day care. It has become apparent, however, that this goal requires a more specific definition. It is not clear, for example, what level of well-being should be supported. Should these children be maintained at a level of development that would have been supported had they remained in their home setting (a level that in fact varies with each home setting)? Or, for those children known to be at developmental risk because of factors associated with their environmental circumstances, should the Federal Government provide special opportunities to maximize their development potential? Is it the total well-being of children that is to be supported, or only their immediate well-being while in the day care setting?

As policy-makers have struggled with the basic questions of what kind of day care the federal government should support and what the FIDCR's goals should be, much attention has been given to the concepts of "harm" and "risk." Since federal funds for day care are finite, increases in mandatory quality standards are almost certain to mean decreases in the number of children who can be served. The prospect of such trade-offs has led to the suggestion by some that federal standards should be set high enough to avoid significant risk of harming children in day care, but ho higher. This approach has been seen as a way to assure optimum use of federal funds. As a result, efforts have been made to delineate the roles played by individual day care components in child development.

Unfortunately, child development research has only just begun to delve into the question of what minimum conditions are necessary for age-appropriate development to take place and what might be necessary to obtain maximum potential development. Thus, to describe risk conditions other than by describing gross actions or inactions that will produce highly visible physical or psychological damage is not easily done. Even more than with other basic questions on day care, both the research literature and expert opinion quickly make clear one thing: it is extremely difficult to obtain answers that can be generalized broadly enough to provide a firm footing for national policy decisions.

Much of the literature examining the antecedents of harm involves children reared from infancy in severely deprived environments — usually institutional environments. As noted, these studies are not completely relevant to day care. The three major studies (Dennis' study of orphans adopted versus non-adopted children, Skeels' study of infants placed in an institution for mentally retarded, and Kagan's study of rural Indian babies) all indicate, however, that early deprivation effects can be ameliorated by a stimulating environment. However, the increased stimulation which came from improved environmental conditions was introduced while the children were still infants. These studies do not tell us whether the observed developmental differences could have been so successfully reversed had the environmental intervention been introduced at a later period in the child's life. Certainly some of the low SES children in Title XX day care come from environments which are not conducive to development which will allow the child to function in a highly complex technological society. For these children, poor day care conditions will not necessarily be ameliorated by improved conditions outside of day care. For that child then, the chances of long term negative effects of a poor home environment are great. Early environmental disadvantages (poor quality day care plus poor home environment) become permanent as they are later socially reinforced. In the Skeels study, those children who remained in the deprived orphanage environment when found 21 years later were not living self-sufficient lives. Thus, for the control children the early deprived environment compounded by continued environmental disadvantages profoundly affected their intellectual and social development. Thus, although the effects of harmful environments can be reversed, it is apparent that intervention is needed in the form of a supportive environment. For many this is the day care facility not the home.

As pointed out above there are certain "insulating" or ameliorating conditions (as well as debilitative ones) which can modify the effects of a child care environment — in this instance day care environments of a given quality. The most important is of course the family. It is important never to lose sight of this fact. Family circumstances, attitudes, and behavior powerfully influence the outcome of day care (Heinicke, Strassman, et al., 1973); Hess et al., 1969; Bronfenbrenner, 1970; Rowe et al., 1972; Schaefer, 1970; White et al., 1973; Emlen, 1975). A variety of demonstrations have shown that interventions designed to strengthen parental functioning affect day care outcomes for the child, whether day care means center care (Heinicke, Strassman, et al., 1973), family day care (Gray, 1970), or home care (Levenstein, 1970). Parent involvement, whether overt or covert and in its many forms, is an integral component of the day care environment (Hoffman, 1971). Schaefer (1970) emphasizes that parents are the primary educational institution. To adequately assess the impact of a particular day care environment on a child one must know the nature of the relationship between the child and his family while in care. Day care must always be considered in the context of the family and the interaction between the two can't be ignored.

Surrounded by so much complexity, so many variables, and so much that is imperfectly understood, the policy-maker is almost certain to find the "harm/risk" approach to standard setting of only the most general help. To be sure, everyone will agree that Washington should not support care that "harms" children or even runs a significant risk of harming them. Yet reaching a broad consensus on precisely what standards are needed to avoid harm is extremely difficult, as the endless controversy over the FIDCR has amply demonstrated. At one end of the spectrum are those who would limit federal standards strictly to the relm of preventing physical harm -- injury, disease, long-term impairment of health. A great many other participants in the FIDCR debate believe the standards should take cognizance of at least some psychological, social, and cognitive hazards to age-appropriate development. At the other end of the spectrum are child advocates who believe children almost by definition have been harmed if they do not receive the full array of supportive and stimulative services needed to assure maximum development of individual potential.

Existing research and the opinions of experts can provide valuable insights into some aspects of day care and child development. They can offer useful guidance on the broad issues to be resolved. In the end, however, decisions on federal day care standards -- like most important issues of public policy -- must be made with less than perfect information. Formulations such as "harm/risk," while potentially helpful, are no substitute for a careful and sensitive effort to balance benefits, costs, and competing values and points of view.

Distinctions are made in this paper between those elements that are necessary to support the well-being of the child while in the day care setting (core elements) and those that affect the total well-being of the child but are not related to the child's immediate well-being while in the day care setting (noncore elements). Clearly, all nine elements of the FIDCR are not core elements. However, some noncore elements, such as social services and parent involvement, directly influence the quality of interaction between the child and parent or caregiver, which in turn affects the social, emotional, and cognitive development of the child.

ORGANIZATION

This paper is divided into seven topics.

These are six of the nine present FIDCR components (health and nutrition are treated as one requirement in the FIDCR). This paper does not deal with the Administration and Coordination component or with the Evaluation component because those two are only indirectly related to the well-being of children in care. The Social Services component is not discussed in this paper because it was adequately discussed in the FIDCR Appropriateness Report.

Each of the component discussions (Grouping, Caregiver Qualifications, Education Services and Environment, Parent Involvement, Health and Nutrition) contains a brief summary of the FIDCR provisions relating to that component; when necessary a definition of the issues surrounding the component; a description of the operation of the component in the real world of day care; and a review of research results and expert opinion on that component. The discussion includes an examination of how the component appears to affect the quality of care that children receive, which dimensions of the component appear to be most important, and how the component appears to operate in all modes of care. Each discussion concludes with an examination of the implications of these data for regulation of that component.

The data discussed in these sections and the findings presented will deal mainly with infant, toddler and preschool center and family home day care. There is only a limited amount of information regarding both school age children and handicapped children in day care. As a result, although the Federal Interagency Day Care Requirements currently include these two populations, decision makers are at a serious disadvantage when addressing the revision of requirements relevant to these populations.

"Many of the things we need can wait. The child cannot.
Right now is the time his bones are being formed,
his blood is being made and his senses are being developed.
To him we cannot answer 'tomorrow'. His name is 'Today'. "

Gabriela Mistral - Nobel Prize Winning Poet

I. GROUPING OF CHILDREN

PROVISION OF THE FIDCR

The FIDCR contain specific requirements regarding child-staff ratio, group size, and age mix for children in group day care homes, family day care homes, and day care centers. Because these elements are interrelated, they are considered together in the FIDCR under the rubric "Grouping of Children." Table 1.1 summarizes these requirements.

DEFINITION OF THE ISSUE

Child-staff ratios cause more concern in the day care field than any other aspect of the FIDCR. There are two interconnected reasons for this concern. First, as the ratio goes down (allowing fewer children per staff member), the cost of day care goes up and the number of children who can be cared for with a given amount of money goes down. Second, there is a widely perceived relationship between quality of care and relatively low child-staff ratios (few children cared for by one adult). Because of this interplay between staffing ratio, quality, cost, and number of children served, it is particularly important to identify--insofar as possible--the effects of varying ratios on the outcome of day care programs.

The two broad goals of preventing harm to children being cared for in day care and promoting their social, intellectual, and psychological development may require regulations that differ in important ways. Consider, for example, the number of adults needed to supervise a given group of children. Although relatively few may suffice to prevent accidents and keep conflict within bounds, a relatively large number may be needed to

TABLE 1.1 FIDCR Requirements on Grouping of Children

Type of Care	Age Mix	Maximum Child-Staff Ratio 1/	Maximum Group Size
FAMILY DAY CARE HOMES Place: family residence (May serve a maximum of 6 children including the day care mother's own children 2/)	0 through 6 years	5:1	5 (No more than two children under 2)
	3 through 14 years	6:1	6
GROUP DAY CARE HOMES Place: extended or modified family residence (May serve a maximum of 12 children)	3 through 14 years	5:1	12
	School age through 14 years	6:1	12
DAY CARE CENTERS Place: private dwellings, settlement houses, schools, churches, social centers, public housing units, specially constructed facilities, etc. (Serves at least 12 children but there is no maximum)	0 through 6 weeks	1:1 3/	Not specified
	6 weeks to 3 years	4:1 3/	Not specified
	3 to 4 years	5:1	15
	4 to 6 years	7:1	20
	6 to 10 years	15:1 3/	Not specified
	10 to 14 years	20:1 3/	Not specified

1/ Legislation that expired Oct. 1, 1978, allowed a moratorium on staffing ratios for children 6 weeks to 6 years of age in group day care homes and day care centers.

2/ Legislation that expired Oct. 1, 1978, required that only the day care mother's own children under 6 years of age be counted. Previously it was all her children under 14 years old.

3/ These requirements are applicable to the Social Security Act Titles IV-A (WIN), IV-B, and XX day care only. They are not part of the 1968 FIDCR.

stimulate age-appropriate development and respond to children's individual needs.

Child-staff ratio can be an important indicator of staff burden. In a high ratio situation, an adult must distribute his or her time over a large number of children. In a low ratio situation, caregiver time is distributed over fewer children. But ratio is not always a reliable indicator of staff burden because caregivers do not always divide their time evenly among the children in their care. Similarly, child-staff ratio cannot be depended upon alone as a reliable indicator of quality care. Preferences for certain children, and active and outgoing children who make demands on a caregiver's time, often result in an inequitable distribution of attention. Thus, especially in a large group situation where there are many adults and children, a low child-staff ratio does not necessarily guarantee that a child is getting his or her fair share of an adult's time. It becomes apparent, then, that group size is another factor which must be considered when one is attempting to provide quality day care.

Group size requirements are based on the same assumption as child-staff ratio requirements; namely, that certain kinds of interactions between staff and children that are crucial for preventing harm and promoting development are best promoted by limiting numbers of children and caregivers. Substantial research and practical experience support this assumption. Such interactions cannot be regulated directly, however, because they are influenced by personal characteristics of individual caregivers and children, by the activities of the moment, and by many factors outside the scope of Government influence.

EVIDENCE OF APPROPRIATENESS

Can child-staff ratio and group size be isolated as a lead core component of day care, a component which is important in terms of the impact day care has on the child? Are ratio and group size the primary determinants of quality care?

The key to a good day care program is the quality of interaction among the children themselves, and between the children, both as a group and as individuals, and the caregiver.

This can only be regulated indirectly using such proxies as group size and child-staff ratio. Child-staff ratios may guarantee very little by themselves; for example, a 1:1 ratio does not assure quality if the caregiver is incompetent and insensitive. However, ratio and group size when combined with caregiver qualifications, may predict fairly well whether a program will support the well-being of the child.

As this illustrates, ratio alone is not the decisive core component of day care but interacts with other components of day care, including group size and staff competency, to affect the quality of care that children receive. Identifying the most important or critical core component in day care is much like attempting to identify the one wheel which makes a clock operate. Just as no one wheel makes a clock operate but rather an interrelated combination of components, the same is true for day care. These other components include: caregiver skills, developmental goals of the program, the age mix of the children, and the size and arrangement of the facility. However, staffing ratios and group size are perceived as an easy dimension to regulate and one which strongly influences the impact of other factors in day care.

Impact of Ratio on Children

Relatively little research exists in which staffing ratios were examined as an independent variable, i.e., in which ratios were studied in such a way that the findings conclusively point to the part the ratio had in affecting an outcome with regard to caregiver performance or child behavior. Many of the studies reviewed for this paper primarily examined the impact of enriched early childhood environments on children (Heber, 1972; Garber et al., 1976; Ramey and Smith, 1976; Robinson and Robinson, 1971; Fowler, 1972; Fowler and Kahn, 1974). Other studies demonstrated that day care per se was not harmful to children (Keister, 1970; Caldwell, 1964; Lally, 1974; Kagan, Kearsley and Zelazo, 1977; Saunders, 1972; New York Infant Study, 1977). Low child-staff ratios (range 1:1 to 5:1), were a component of each experiment. However, ratio was not experimentally varied in these studies and the number of observations were not nearly large enough to support statistical controls for competing factors.

In a study by Fiene (1976) involving children age three, child-staff ratios were systematically varied and effects on the children's verbal behavior were examined. Although the differences in treatment groups often did not reach acceptable probability levels for rejection of the null hypothesis, the trend of the data indicated that more adult-child verbalizations can be expected when an adult works with fewer children. In this study contrasts were made between ratios of 5:1 and 10:1. In addition to reduced adult-child verbal interaction in the 10:1 condition, Fiene found that the children became more clannish, that is, they communicated more with each other than with adults. As William Meyer (1976) noted, it is unfortunate that this study did not include more data points (6:1, 7:1 for example) so that one might better estimate at what point the number of children per staff member critically alters the level of interaction.

The work of Hunt et al. (1976), Skeels (1976), and Dennis (1960) all indicates that the greater the continuity in caregiving and the fewer children per caretaker, the greater the gains in test score performance, the greater the spontaneous verbalizations, and the lower the incidence of aggression. These studies involve institutionalized infants, not children in day care settings. They deserve mention, however, because they were able to demonstrate that an enriched environment can reverse developmental retardation which had been brought about originally by poor environmental conditions. A vastly reduced caregiving ratio (1:1 or 2:1) was only one of many variables which were operating in these experiments. Caregiver continuity, some training and structured activities were the other operating variables. Thus, it is impossible to be certain that ratio was the major determinant of the observed effects. But the researchers intentionally used low ratios to insure the quantity and quality of interaction they felt was needed to support child growth.

The one consistency then, in the infant and toddler studies cited above, is that low child-staff ratios were a component in all of them. And in every instance where children from low income, potentially damaging environments were studied, cognitive test scores were much higher than the norm for that given SES group. Although low child-staff ratio cannot be singled out as the major factor responsible for these gains, no studies have been found which report similar results using high child-staff ratios.

In fact, the only day care study reviewed for this paper that involved high child-staff ratios (16:1 to 24:1) found reduced levels of intellectual functioning in two year olds (compared to home reared two year olds), who had been enrolled in Florida day care centers since eight weeks of age. Other aspects of the day care environment were not identified in this unpublished dissertation (Peaslee, 1976) and the comparableness of the home environments of the experimental and control children was not clear except that their SES was similar.

Although no firm conclusions can be drawn about child-staff ratios from the individual studies, "the consistencies that occur over diverse studies make inferences possible" (Meyer, 1976). Moreover, recent research on families that provide stimulating intellectual environments, as well as research in university day care settings that examines quantity and quality of adult interaction with children, affirm the importance of time spent with children by competent adults for a child's cognitive development. 1/ Other things being equal then, the lower the child-staff ratio in day care, the better the chances of cognitive development at or above norms.

It should be noted that the findings regarding the importance of low child-staff ratio and group size that emerge from the many research studies examined for this report, and from expert opinion surveyed, are supported by the findings of the NDCS Cost-Effects Study (Abt, 1977). The NDCS Cost-Effects Study is the largest study of day care centers ever done in this country, and is one of the few studies which experimentally manipulated ratio as well as group size and caregiver qualifications. In this study a contrast was made between a low ratio of 5:1 and a high ratio of 10:1 in an experimental substudy. In addition, a range of ratios and group sizes were studied in the naturalistic portion of the research project. However, it is limited to the question of ratio and group size for three, four, and five year old children only.

1/ Major research in this area has been done by Lindert (1977), Zajonc and Markus (1975), Walberg (1976), Walberg and Majoribanks (1976), and Hill and Stafford (1974).

Because this study has already received considerable attention from members of the day care community as well as from Congress, its preliminary findings are presented independent of the synthesis of findings from other studies.

Impact of Ratio on the Caregiver

When looking at child-staff ratio and group size most attention is focused on the impact of the ratio on the child. However, expert opinion and empirical evidence indicate that ratio and group size also have an impact on caregivers which alters their working relationships with the children in their care and may even expose children to potential risk situations.

At least one study found that responsibility for large numbers of children and long hours can result in "caregiver burn-out" (Maslach and Pines, 1976). 2/ "Burn-out" is defined as diminished concern for the children for whom one is caring. In addition, where ratios were high negative feelings about the job surfaced and increased in

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2/ Other related variables, which are not regulated by the FIDCR, were also found (by Maslach and Pines) to affect caregiver "burn-out." These included 1) Longer working hours (which were associated with more stress and negative attitudes--primarily when the longer hours involved more work with children); 2) "Time-outs," which refer to the ability of the staff members to voluntarily withdraw from work when feeling strained and under pressure; 3) Staff meetings, the number and perceived importance of which were closely related to better working conditions in the center, as reflected in a smaller child-staff ratio, fewer hours on the floor, more opportunities for time-outs and more vacations. (These were found to enable staff to socialize informally, provide mutual support, confer about problems, clarify goals, and influence center policies); and 4) Program structure, the more open, nonstructured centers had better working conditions, including a much smaller child-staff ratio, fewer hours on the floor with children, a greater opportunity to take time-outs, and many more vacations.

intensity. Lilian Katz, Professor of Early Childhood Education at the University of Illinois, talks about fatigued caregivers' need to distance themselves from the children emotionally in order to reduce the stress they feel from dealing with large numbers of children. Although no studies have been done which can specifically link caregiver "burn-out" with cognitive, social-emotional and physical outcomes in children, changes can be observed (as in the West Virginia family study or in the Fiene study) in the area of classroom process. In these studies, the interactions between overtaxed caregivers and children declined in quality and quantity. Quality and quantity of caregiver attention have been shown to affect the development of a child. The question which cannot be answered precisely is, at what point does the decrease in adult attention result in a potentially harmful situation for the child? 3/

Impact of Ratio on Child-Caregiver Behaviors

The typical approach to establishing evidence of the appropriateness of child-staff ratios is to look at child outcomes, the most commonly measured one being cognition. Some theoreticians feel that child and caregiver classroom behaviors are more important to observe and use as short term outcome measures than the standardized tests typically used. It is plausible then, to ask what behaviors are ratios supposed to facilitate? Low ratios are supposed to facilitate responsive caregiver-child interaction. But what kinds of caregiver behavior do parents expect? Do they want--as Ricciuti (1976) suggests--care that approximates the attention a child would receive in the home environment? The parent interviews from the National Childcare Consumer Study (UNCO, 1975), the National Day Care Cost Effects Study and the NDCS Infant Center Study indicate that to be the case. The UNCO Study asked respondents, including current users of in home care, nursery

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3/ It should be noted here that infant caregivers in centers spend 3 hours more in classrooms each week than staff caring for older children. It is possible that this may be a factor which undermines the quality of caregiving and should be examined along with ratio.

schools, day care centers and family day care homes, about factors which influenced their selection of care. Caregiver reliability or training, warm and loving caregiver, a clean and safe place and a type of care the child likes, were the most important selection factors given. For in-home as well as family day care users, the "reliability" and "warmth" of the caregivers were deemed to be the most important factors. Parents interviewed as part of the NDCS Infant Center Care Study rated patience and warmth as the most desirable caregiver qualities. In addition, those parents using center care who were interviewed in both the UNCO and NDCS surveys wanted a developmental component in their childrens' day care programs.

The caregiving behaviors expected by these parents involve two dimensions: quality and quantity.

Qualitative Dimension. The need for individualized responses to all children is implicit in the parents' expectation for caregiving. And child development experts universally see this individualized attention as an important dimension of caregiving behavior. As discussed above, caregiver "burn-out" would obviously interfere with the individualized warmth parents expect. Katz does not categorically state that reduced ratios would eliminate this behavior but common sense suggests it is one element that might ease the problem. In addition, Carew (1976) suggests that when working with children under three, the number of children per caregiver must be limited so that each caregiver can acquire the specific knowledge about each child which is needed if the caregiver is to respond sensitively to individual children. Again, the suggestion is that low ratios are necessary to support the qualitative dimension of individualized interaction with children.

The developmental component expected by parents whose children are in centers is another qualitative dimension of caregiver behavior. Carew's research (1976), as well as that of Ainsworth and Bell (1974), Yarrow, Clarke-Stewart (1973) and many others, has found that the social and cognitive competence of young children is strongly influenced by the quality of their relationship with their caregiver. Carew (1976) demonstrated that the intellectual experience which teachers in centers provided for individual children in their third year was the strongest predictor of their IQ and other tested abilities at age three. Binet IQ scores were uniquely predicted by language-related intellectual experiences that teachers and volunteers provided for the child; Spatial Abilities scores were predicted by language and expressive-artistic experiences that teachers created jointly with the child in reciprocal interactions. No other source of intellectual experiences, including the child's own intelligent behavior in solitary play, accounted for a significant part of the variance on the IQ test. The New York Infant Day Care Study (1978) also hypothesized that the IQ differences they found between children in group care and those in other care settings were due to different experiences in the third year, one of which was a change of teachers in the group settings. At this point licensed nursery school teachers provided academically oriented learning experiences for the children.

The qualitative dimensions of caregiver behavior--warmth, timely and sensitive responses, and the provision of intellectual experiences--all appear to be facilitated by low child-staff ratios. The authors of the experiments cited earlier in this section recognized this. In order to facilitate interactions they felt were essential for enriching a child's experience, they found it necessary to keep ratios low.

In fact, parents with children from birth to two years of age, when queried (UNCO, 1975), stated that the largest number of children for whom a caregiver should be responsible (assuming acceptable facilities and staff) is 4-5:1 in centers and 2-3:1 in family day care homes. Both users and non users of these modes of care supported the same ratio.

Quantitative Dimension. Ratio and group size also affect the quantitative aspects of caregiver behavior. The quantity of adult attention does affect child behavior. For example, in the New York Infant study (1978), children in family day care received significantly more individualized attention from caregivers than children in group care. Differences in the amount of individualized attention children received correlated significantly with their social competence in dealing with adults at three years of age. This finding, combined with research on family environments, controlling for SES (Lindert, 1977; Walberg, 1976; Carew, 1974), indicates that time spent by an important adult interacting with the child has an independent net effect on development. Given a limited number of interactions possible between an adult and several children in one day, the question arises, at what point are the numbers of children so large and the individualized interactions decreased to such a degree that a child is being neglected or inappropriately attended to?

One family day care home study (Ristau, 1977) suggests that the frequency of overall child-oriented behavior on the part of the caregiver increases when two or three children are in care rather than just one child. However, caregiver behavior directed to each child as an individual drops off. And, given a limited amount of overall interaction possible, there is little increase in the amount of total child-oriented caregiver behavior as the group size rises above three. 4/

Thus, ratio and group size do affect the frequency or quantity of caregiver behavior toward children. In other words, the frequency of overall child-oriented behavior appears to increase only up to a point (in Ristau's West Virginia study this point is three children), after which there is no further increase. And, the quantity of attention to individual children decreases significantly as the ratio increases.

Given these findings it is important to ask, what is the rate of decrease? There is probably an immediate decrease in quantity of individual interaction when a ratio moves from 1:1 to 2:1. Thereafter the quantity and quality of interaction between the caregiver and the individual children in her care may level off or decline only gradually up to another point (in the West Virginia family day care home study this was 3:1) before it declines sharply. The National Day Care Center Study (NDCS) preliminary findings, cited later in this paper, describe this phenomena in high and low ratio centers.

There are no empirical studies other than the still to be completed NDCS Study which attempt to identify the point at which ratio is so high that positive interactions are limited and the child may be potentially at risk. Even

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4/ In this study, "total behavior" encompasses a range of caregiving behaviors which were recorded on an observation instrument during a series of onsite visits. These included: negative vocalization, acknowledge, warns, play interactively, physical affection/holds, suggest/direct, question etc.

in this case expert opinion must be solicited to reach agreement on when the observed quality of a given caregiver behavior is sufficient or insufficient.

What is clear is that low child-staff ratios make possible appropriate, timely caregiver responses which research suggests are needed to support a young child's ego growth and his sense of trust in adults (Carew, 1974; White et al., 1975; Bowley, 1958). In addition, low ratios appear to foster positive caregiver attitudes. Although the link between these caregiver behaviors and short and long term child outcomes is not known, common sense would indicate that these behaviors must have some positive effect--if it is only to satisfy the parent that their child is receiving individualized attention.

Impact of Group Size on Children

Is the influence of child-staff ratio in part dependent on group size? Will the level of development supported by a 3:1 ratio in a given day care program for three year olds remain the same, for example, if the ratio is held constant (3:1) but the group size is increased to 24? The result would be eight adults and 24 children in one large area.

One study by Wilcox et al. 5/ compared a classroom with a 20:5 ratio where each caregiver was assigned a specific group of four children with another classroom which had a 20:5 ratio but where no specific assignments of caregivers to children were made. No statistically significant differences were found between the two situations so far as interactions between the children and caregivers were concerned. What was found was that caregivers in the "assigned" situation interacted with children of their own selection in spite of the predetermined assignment. The children displayed the same tendency toward self selection. Each of the children developed a high frequency of contact with a particular caregiver, though not necessarily the one assigned to them. The study suggested that a natural clustering tends to occur in large groups; children and caregivers tend to select each other in patterned ways. Group size then, does affect the operating ratio in spite of what the "assigned" ratio

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5/ See bibliography

may appear to be on paper. Instead of a 4:1 ratio for all children in a class of 20, what may actually exist is a 10:1 ratio for some children and a 2:1 or 6:1 ratio for other children. The danger of this selectivity is that some children--the shy, withdrawn or "slow to warm up"--may receive less attention from caregivers in a large group setting. "The squeaky wheel" principle may operate here. The child who makes more demands gets more of the caregiver's attention. Ronald Lally, director of the University of Syracuse day care project, stated that caregiver-child selectivity definitely operates in center care. He observed that the children in the University of Syracuse day care center periodically--especially when under stress--would seek out their favorite caregivers, touch base with them to seek reassurance, and then move off to a new activity, often in a different room.

Both research evidence and expert opinion favor the argument that child-staff ratio can be conceptualized and measured only in the specific context of group size. William Meyer, in his concept paper prepared for ASPE, argues for the need to consider group size because in large open classrooms, formally fixed ratios and specific caregiver-child assignments can be negated by selective clustering between caregivers and children. Therefore, to know whether a specific ratio is actually operating and thus assuring a given level of interaction, careful observation must be made to determine who is interacting with whom.

Tightly structured center programs which isolate a particular caregiver with a specific group of children could frustrate this natural tendency to select a favorite caregiver unless assignment of caregivers to children is delayed until the children and adults have had time to cluster naturally. An unstructured program approach which allows the child free choice among activity areas, and floating caregivers who supplement the caregivers assigned to these areas might be an acceptable way of keeping actual child-staff grouping close to a predetermined ratio.

The psychological experience of a 5:1 ratio appears to be quite different from a 10:2 or 25:5 ratio. Hence ratios should be defined in terms of actual child-staff contact, rather than as an abstraction derived from the total numbers of children and staff. The NDCS preliminary findings cited later also lend support to the influence group size has even when ratio is held constant.

Should Group Size Be Age-Specific? The possible danger of overstimulation due to group size is more of a concern for younger children than older children. Therefore, particular consideration should be given to the specification of group size for children under three years of age in centers. No group size requirement is currently specified for children of that age.

Empirical evidence of the effect of ratio and group size on such things as child distress are discussed later in this paper with other findings from the National Day Care Center Infant Study.

Alice Honig (personal communciation), suggests, based on her own experience, that no more than eight children under 18 months of age should be grouped in one room. Caldwell and Lally (1977) support this conclusion. Joseph Stone's work in Israeli Kibbutzim led him to support groups of not more than five toddlers in each house with a caregiver.

Group size as an independent variable has received more attention than age-mix. Mueller and Vandell (1977) compared male toddlers' spontaneous peer interaction in groups of different size. Over a six month period significant development trends were found only in settings involving no more than two toddlers. No systematic changes (in number of interactions, duration of interaction, etc.) were found when four or more toddlers were cared for together. Similarly, measures 6/ of toddlers' social behaviors increased only during the dyadic interactions, not in the group. Mueller and Vandell use this finding to raise questions about the lack of importance other research has attached to social interaction and behavior during the second year of life. They observe that those researchers who do not find growth during the second year tend to base their findings on observation of groups larger than two children. Mueller and Vandell suggest that numerous social partners may distract the infant and prevent the focusing of attention needed to maintain interactions. They caution that their findings are not necessarily an argument against placing toddlers in group situations, since social skills may only be manifested in dyadic interactions though in fact they may be

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6/ Number and duration of social interactions.

developing in both dyadic and larger group situations. Bingham (1975), compared 28 infants in family day care with 18 in group day care, and claimed to find no effects from group size. However, since his group size difference was confounded with the group versus family distinction, his results are not convincing.

In working with three year olds, Fiene (1975), found a definite decline in verbal output and complexity of adult-child talk as group size is increased. However, there was no decline in peer talk. Unfortunately, it is not clear whether this result contradicts Mueller and Vandell, since the peer talk is not broken down into dyadic versus non-dyadic conversations, and a different response may simply reflect a difference in the social behavior of three year olds.

The NDCS findings cited later regarding effective group size for three to five year olds, and the limited findings from the NDCS Infant Study, when combined with the trends in the data cited above strongly suggest that group size should vary with the age of the child. More research is needed for children under three and school-age children to determine an appropriate range in group size for these ages.

Impact of Group Size on the Caregiver

In a review of research concerning the effects of group size on day care providers, or caregivers, Maslach and Pines (1977) indicated that "relatively little attention has been paid to the impact of class size on staff performance, although there is some general acknowledgement that it does exist." They noted that surveys of teachers attitudes over the years have consistently found that teachers feel more frustration, depression and nervous strain when they have larger classes.

Both Honig and Lally's experience in the Syracuse Day Care Project (Lally, 1977) support the concern expressed by Maslach and Pines. Originally the Syracuse Day Care Project placed 45 children between 18 months and five years of age in a large open space with modularized areas. The ratio operating was approximately 4:1. Teachers experienced a great deal of stress because, given the goals of the program, they were forced to deal with each child's age specific needs but found they couldn't deal with the children as individuals in such a large group setting. The caregivers complained that the group size had to be reduced if they were to deal effectively with the children as individuals. The group was then divided into modules of 15 to 20 children holding the ratio constant. Under these conditions the staff was able to deal satisfactorily with each child in an individualized manner. It would follow from this that group size obviously influences caregivers' ability to respond to each child as an individual.

Regardless of whether day care is envisioned as an enrichment program or a minimum model of child care, children must be treated as individuals with their needs responded to in a timely and appropriate fashion. Empirical evidence regarding shifts from social interaction by caregivers with their charges, to the more depersonalized management caregiving behaviors as group size increases, can be found in the NDCS preliminary findings. These findings and the research discussed above support the conclusion that group size is an important dimension of any day care component.

Present Ratios for Children under Three--Risk vs. Development

Those studies cited earlier which show enhanced children's cognitive skills all involved an enriched environment of which one component was a low child-staff ratio, ranging from 1:1 to 5:1. The majority of children studied were just under three years of age. Comparing this to the FIDCR ratio for children under three of 4:1 in center care and 5:1 and 6:1 in family day care homes, it appears that the present FIDCR ratio does represent a point closer to the developmentally enriched end of the continuum than to the other end of the continuum or minimum level of care. However, it should be remembered that some of these research studies used trained caregivers and in some instances involved structured activities designed to stimulate development. Also a great deal of individual care was provided, as well as continuous care by the same adult. Thus, a 5:1 ratio or lower without these additional dimensions may not result in the same cognitive changes. For example, the New York Infant Study (1978) examined both family day care and group care settings where the ratio was 3:1. In this study a higher level of performance on the Stanford Binet was found only in the group setting. This may have been due to the specialized training of the caregivers who cared for the children in the group care settings.

Comparing the FIDCR ratio for children under three to the observations made by experts yields the following: Most feel that ratios alone are a "poor" means of quality control," 7/ because care results are affected by so many other characteristics of the center. Kagan (1976) recommends that a caregiver not be responsible for more than three children under three years of age. A greater number than this, he feels, places a severe "psychological burden" on the caregiver. Thus, he would find the FIDCR center ratio of 4:1 a 33% greater burden for the caregiver than he would like. Kagan would view the FIDCR family day care home ratio of 6:1 as a 100% greater burden than is desirable for the caregiver. Ricciuti (1976) would find the FIDCR center ratio of 4:1 very acceptable for the child over one but would reduce the ratio to 3:1 for the child under one down to six weeks of age. For children from birth to six weeks of age, Ricciuti would increase the ratio from the present 1:1 to 2:1. He deems a ratio of 8:1 and 10:1 as extremely unfavorable.

Hunt (1976) would allow higher ratios than the FIDCR (more children per caregiver) for children under three years of age. He supports a 5:1 or 6:1 ratio providing the caregivers are skilled at fostering vocal imitation. Meyer (1976) supports more flexible ratios to allow for the skills of the caregiver, characteristics of the children and parental values. He feels that given these other considerations, ratios may need to be as low as 3:1 or can be as high as 12:1. Fowler (1975) supports a lower ratio than the FIDCR for children under two (2:1 for children under one and 3:1 for children under two). Keister (1970) supports the FIDCR ratio or would let it rise to 5:1. She does not support a lower ratio because she feels the caregivers would become bored. All except Kagan support a ratio of at least 4:1 for the child between two and three years of age. Thus, the FIDCR ratio of 4:1 for the child between two and

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7/ Mathematica, p. 78.

three years of age, both in terms of expert opinion and indirect evidence gleaned from enrichment experiments, falls nearer the enrichment end of the continuum. The experts feel this ratio should support the adult interaction and stimulation needed to promote intellectual development.

The majority mentioned here supports alterations in the FIDCR for the child between six weeks and two years of age. Those specialists who want the FIDCR ratio lowered to allow caregivers to care for only two or three children feel that it will enable the caregiver to provide greater support for each child during a period when they believe it is difficult for children to be separated from their mother. Fear of spreading communicable diseases when susceptibility is low is another motive for lower ratios for this age. Ricciuti and Keister would argue that ratio should never be reduced to 1:1 as it is now for children up to six weeks, however. Ricciuti feels that centers would be forced by economic factors to use a great deal of part time help or volunteers to meet this low ratio. He speculates turnover would be high and the important element of continuity of care by the same adult or two would be lost, thus harming the infant.

Differences in Regional Patterns for Children Under Three

Any discussion of revising ratios for children under three years of age in day care must also consider certain regional patterns which have been observed with regard to use of day care for very young children. Two states now forbid center-based care of toddlers; 15 other states have no regulations concerning such children--an omission which may reflect antipathy toward such arrangements or only indifference. A more striking phenomenon is the fact that use of center-based care for toddlers is enormously more common in the Southeast and Southwest than in other regions of the country. Of all U.S. children under two years of age who are enrolled in day care centers, 83.2 percent are located in a tight geographical cluster of 14 southern States. Similarly, 81.9 percent of all the licensed centers which care for five or more children under two years of age are in the same cluster of States. It is not known why this use pattern exists, whether it springs from traditional attitudes toward child care unique to the region, from the particular history of economic development and entry of women into the work force in the Southeast and Southwest, from the way centers have developed in different parts of the country or from other causes entirely. While no conclusions as to the implications of these patterns can be drawn at this point it is too remarkable to overlook. It seems clear that they reflect some differences in regional attitudes toward day care for young children which are too significant to ignore in future deliberations over the FIDCR's staffing requirements for the care of very young children.

The potential importance of regional differences in use of day care for infants and toddlers is magnified by another trend which is clear from the survey data: children under three, if they are enrolled in center care, are in the center for a full day more often than children of any other age group. Moreover, they are in the center for longer hours than the full day children of other ages. These trends are most pronounced again for the Southeast and Southwest. It should be noted in passing that a greater proportion of the centers in the Southeast and Southwest (82% and 61% respectively), than centers in the North (33%), are privately funded.

Ratio and Group Size for the Preschool Ages

Day care studies which involved preschool age children (four, five, and six years of age), (Cornelius and Denny, 1975; Moore, 1975; Lay and Meyer, 1973; Schwarts et al., 1974; Lippmann and Grote, 1974; Rapt et al., 1964) examined the social development of children in day care as compared with children reared at home by their mothers or surrogates. Ratio was not experimentally manipulated and therefore no firm conclusions can be drawn about ratio as it operates independently to affect classroom activities and child outcomes for the preschool child.

The National Day Care Center Study findings will yield the only empirical evidence on the subject of ratios for three, four, and five year old children. There is no empirical evidence regarding ratios for the six year old child. Because there is no empirical evidence other than the latter which describes the impact that ratio exerts independently on the preschool child, projects were examined in which preschool children demonstrated some developmental gains.

Although nothing conclusive can be said about ratio, the data shows that low child-staff ratios were one component of the successful programs.

The various intervention experiments currently being re-examined by Lazar at Cornell University (1977), involved preschool age children (although not in day care situations). Cognitive gains were achieved for the experimental group which lasted up to 12.8 years of age before fading. Again, although ratios were low, they were not experimentally manipulated within each intervention experiment and no conclusions can be drawn about their independent effect on child outcomes. However, using placement in special education classes in the public schools as a measure of effectiveness produced several significant findings when the various intervention projects 8/ were aggregated. The pertinent one to this discussion is that the number of chidlren per adult had a negative correlation of -.8298 with effectivesness, p = .025, thus implying that the more children per adult, the less effective the program. This variable was the single most effective variable of those studied. When Karnes subgroups were excluded, the effectiveness correlation increased r = -.9115 (Vopava and Royce, 1978).

Head Start is expanding many of its programs to full day from part day. Policy for both full day and part day programs requires a 5:1 ratio and a group size of 15. This ratio includes volunteers as staff. Again no evidence is available about the impact of this ratio on the preschool aged child in Head Start.

Ratios for any age group, must reflect the goals of the child care program. The goal most providers in center care have in mind for the preschool child is school readiness (National Day Care Center Study, Phase II Report II, 1977). Given this goal, what ratio would support the kind of interaction needed to achieve this for the preschool child? To answer this, consideration must also be given to the type of educational component and the caregiver qualifications.

8/ These projects include those early intervention experiments conducted by Gordon, Gray, Weikart, Beller, Levenstein, Miller and Karnes.

Parents' attitudes regarding ratio for the preschool child are an important information source for policy makers examining the present FIDCR ratios. In the National Child Care Consumer Study (UNCO, 1975), parents with children three to five years of age who used all modes of child care (not center care exclusively), would support at the maximum a ratio of 8 or 9:1 in centers, assuming acceptable facilities and staff. Those parents who only used center care for their three to five year old children would support an even higher maximum ratio, 10 to 11:1, assuming acceptable facilities and staff. In family day care homes, the maximum ratio parents with three to five year old children would support is 4 or 5:1. Both users and non-users of family day care agree on this ratio. It is interesting that parents require a lower ratio for three to five year olds in family day care than in center care. One reason may be that users of center care share the caregiver perception that the goal of center care is school readiness. Thus, they may be assuming that the program is structured, allowing the caregiver to control a greater number of children as is often done in preschool. It should be noted, however, that the number of hours and type of care involved in preschool or nursery school differ substantially from the day care situation. It should also be noted that one third (33%) of the children aged three to five in center care are in the facility less than 30 hours. The parents of this group probably view center care less as a surrogate parent mode of care than as a supplemental social experience for the child. Therefore, they are less concerned about low ratios which support adult interaction. On the other hand where they seek a warm, home like environment in family day care they support a more restrictive ratio than is currently found in the FIDCR.

Conclusion:

The findings from the National Day Care Study must be considered with the evidence above in order to reach a firm conclusion regarding ratio and group size for preschool age children.

FINDINGS

General Findings from Research other than the National Day Care Center Study

- The child-staff ratio operating in the classroom does not necessarily remain constant in a group that has more than one adult in it. Natural clusterings of adults and children tend to occur in large groups; children and caregivers tend to select each other in patterned ways. Thus, the psychological interactions between children and caregivers in a group of five children with one adult are quite different from those in groups of 10 children with two adults or 25 children with five adults, even though the "paper" ratio in each instance is 5:1.

- Research evidence clearly demonstrates that the development of competence up to age four is significantly affected by the amount and nature of interaction the child has with key adults in his or her life (Carew, 1975; New York Infant Study, 1978; Vopava, 1978).

- Findings in Head Start (Miller and Dyer, 1975), and in Follow-Through first and third grade programs (Stallings, 1975) show that the social-cognitive competency of older children is also strongly influenced by the quality (nature) of their relationship with their caregiver.

- Expert opinion supported by empirical evidence indicates that child-staff ratio and group size have an impact not only on the child but also on the caregiver. "Caregiver burnout"--disinterest in the job and lack of concern for the individual child--is brought on by caring for large numbers of children for an extended number of hours per day (Maslach and Pines, in press).

- Empirical evidence and expert opinion indicate that large groupings of children adversely affect the caregiver's ability to deal with the child as an individual because they are too busy managing the group. Two studies found a definite decline in both the amount and complexity of adult verbal output as group size increased beyond 20 children, even though child-staff ratio was held constant. In addition, the adults placed more restrictions on the children both socially and verbally in order to control the group. The children in one study were three years of age; in the other they ranged in age from 18 months to six years (Fiene, 1975; Lally and Honig, 1977).

Findings on Children under Three--Excluding the NDCS Infant Study

Review of expert opinion and research, and common experience in the field regarding ratio and group size for children under age three has led to the following findings:

- The present FIDCR are not specific about the needs of children under three years old in day care, especially in center-based day care.
- Statistics show that the use of full-time day care for children under three years of age is increasing more rapidly than for any other age group. (In center care the increase is 32% for children under two compared to 23% for children of all ages.)
- Over 1.2 million children under age three are in childcare arrangements for more than 30 hours a week (UNCO, National Childcare Consumer Study, 1975).
- A total of 14.4 percent of children in center day care are under the age of three.
- Childcare experts stress that the possible danger of overstimulation due to large group size is of more concern for younger children than older children. Hence, specification of group size for this group must be considered.
- No group size is specified for children under three years of age in centers under the present FIDCR.
- Thirty-four States have no group size requirements for children under age three.
- Many experts favor no more than eight children in a group when those children are 18 months of age and younger.

- Those States that regulate group size for children under 18 months require that those groups contain eight or fewer children, with the exception of Colorado and Tennessee (10), Kansas (9), and North Carolina (25).

- Many individuals affiliated with day care argue that there are too few age breaks in the FIDCR for determining ratio in center care for children under three years of age.

- Currently, the FIDCR specifies one ratio for children up to six weeks of age, and one ratio for children six weeks to three years of age. These individuals suggest breaks of birth through 12 weeks, 13 weeks to one year (or walking), one to two years, and two to three years. These breaks attempt to define developmental stages that have different caregiving needs and that can best be supported by different ratios and group size.

- There is a consensus that child-staff ratio for children under three should not exceed a maximum of 5:1. Childcare experts and parents (Unco, National Childcare Consumer Study, 1975) consider a relatively low child-staff ratio an important element in supporting the all-around development of children--given acceptable caregiver performance and adequate physical facilities. The dimensions 9/ of childcare that promote age-appropriate development have been identified, and those dimensions are most often observed by child development experts and empirical research studies in situations where low ratios are in effect.

- Thirteen States have no ratio requirements for children under age three.

9/ See the discussion in the Caregiver Qualifications section of this paper.

NDCS Preliminary Findings Regarding Infant Care

Support for these findings has emerged from the preliminary findings of the NDCS Infant Day Care Study. 10/ These findings include:

- Centers maintained ratios that were lower on average than the State-required minimum. Actual ratios average 3.9:1 (infants) and 5.9:1 (toddlers), compared with average required ratios of 5.3:1 (infants) and 7.8:1 (toddlers). Group size as observed in the infant study averaged 7.1 children in infant classrooms and 11.3 children in toddler classrooms.

- Larger group size in toddler (age range 18-36 months) classrooms was associated with more overt distress. Larger group size in infant (under 18 months) classrooms was associated with caregivers spending less time in any kind of social interaction with children and less time teaching. (The term "teaching" includes all formal and informal intellectually stimulating activities, such as verbally labeling objects, pointing to pictures, etc., as well as more structured teaching activities).

- In high ratio (more children per caregiver) infant and toddler classrooms, overt child distress was greater.

- In high ratio infant and toddler classrooms, staff spent more time in management and control interactions with children and more time silently monitoring children's activities. These classrooms also were associated with less formal and informal teaching.

10/ The infant-toddler component of the National Day Care Study was a small, naturalist (no experimental manipulation of the variables being examined) substudy designed to describe day care arrangements for children under three. Observation was conducted in 38 centers. For infants, the range in group size observed was 3.3 to 12.6; the range in ratio was 1.3:1 to 10.3:1. For toddlers, the range in group size was 4.0 to 21.5; the range in ratio was 2.0:1 to 14.4:1.

Thus, the available evidence on child growth and development, as well as the findings that low ratio and small group size support the adult in the role of mediator for the child and his or her environment, clearly indicate that low ratios and low group size are significant components of day care that promote the well-being of the child under three years of age.

Findings on Children Three to Five Years of Age--Excluding the NDCS Findings

A synthesis of research literature and expert opinion indicates the following about group size and ratio for children three years of age to school-age:

- There is no consensus supporting precise ratios and group sizes for children over three years of age. Head Start officially supports a 5:1 child-staff ratio for its preschoolers.
- Parents who use center care for their three to five year old children, if pressed to name a maximum acceptable ratio, will support a less stringent child-staff ratio for children three to five years old in center care than is presently specified in the FIDCR.
- For family day care, where only one caregiver is present, these same parents will only support a group size (or ratio) equal to the FIDCR for the same age group (Unco, National Childcare Consumer Study, 1975).

The research obviously is very limited for this age group. However, the National Day Care Study has given us new insights.

NDCS Preliminary Findings on Ratio and Group Size for Children Aged Three to Five

Abstracts of the NDCS preliminary results 11/ show clearly that differences among centers are significantly related to important variations in day-to-day behaviors of caregivers and children and to children's gains on particular tests of school readiness. On the average, center differences as great as 20 to 40 percent--statistically significant--were evident in children's rate of growth on one test known to predict achievement in elementary school. The interesting question is whether these differences in growth rates of children in day care are affected by how a center is organized (e.g., size of groups and qualifications of caregivers). NDCS results indicate that they are.

To date, two characteristics that can be controlled through Federal regulation have emerged from the NDCS preliminary findings as important contributors to overall center-to-center differences: classroom composition and caregiver qualifications. Small groups of children and caregivers work best; the child's day care world should be kept scaled down in size. It has become apparent that child-staff ratio should be seen as the outcome of setting limits on the number of adults and children in the classroom, and not as the principal means of insuring quality. In addition, caregivers with specialization in child-related areas are more effective caregivers.

The following NDCS findings shed additional light on the effects of group size on children aged three to five and their caregivers.

- Classroom composition--defined in terms of the total number of staff members and children interacting with each other--is statistically linked to

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11/ The preliminary findings reported here have emerged as statistically significant in multiple regression analyses and have been shown to be free of possible artifactual effects due to attrition, outliers, and choice of particular units of analyses, covariables, and independent variables.

the following impacts on caregivers and children in day care and on the day care operation:

- -- In groups comprising a smaller number of caregivers and a smaller number of children, 12/ caregivers showed more social interaction with children (i.e., questioning, responding, instructing, praising, and comforting), less straight monitoring of the children's behavior, and less interaction with other adults.
- -- In classrooms where children and caregivers were arranged in smaller groups, children showed more active involvement in classroom activities (i.e., considering and contemplating, contributing ideas, giving opinions, cooperating, and persisting at tasks), and less apathetic/withdrawn behavior and less aimless wandering and general nonparticipation.
- -- Smaller group size was associated with improvement over time on two tests designed to measure important components of kindergarten and first-grade readiness--the Preschool Inventory (PSI), and the revised Peabody Picture Vocabulary Test (PPVT).
- -- With ratios held constant, there was no significant association between group size and center costs.

NDCS findings on ratios included the following:

- The benefits of small groups were observed even when child-caregiver ratios were constant. For example, groups of 12 to 14 children with two caregivers had, on average, better outcomes than groups of 24 to 28 children with four caregivers. These results make it clear that child-staff ratio cannot

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12/ NDCS data make it clear that groups of 15 or fewer children, with correspondingly small numbers of caregivers, are associated with more positive social and cognitive child development and more positive caregiver behavior than groups of 25 or more children. However, it is not possible at this stage of analysis to narrow this range further. Future NDCS analyses will allow more precise specifications of optimum configurations of group sizes and numbers of caregivers and how these parameters should differ for children of different ages.

by itself be the principal mechanism for guaranteeing benefits to children, although it may be an important indicator of staff burden. If the group is too large, adding caregivers will not help.

- There is little indication that NDCS results will lead to recommendations more stringent than the current FIDCR ratio requirements.

- There is no such thing as a single child-staff ratio. Over the course of a day there are fluctuations in the number of children and caregivers actually present.
  - NDCS Phase II data showed that ratio varied on average over the day between 4:1 (7:30 a.m.), and 9:1 (naptime, 1:30 p.m.), with an average of about 7:1 for the remainder of the day except late afternoon (6:1). In the centers studied, extremes in overall child-staff ratio varied from 2.4:1 to 23.3:1, although the majority of centers had ratios between 5:1 and 11:1.
  - Ratio tends to become slightly higher (more children per caregiver) between fall and spring as group enrollment increases slightly.
  - For the same classroom situation, wide differences in calculated ratio (4:1 to 7:1) result from the particular measure used (head count, hour count, scheduled enrollment and staffing data, observations of staff and children, etc.), and from the method of computation used (e.g., weighting for contact hours between staff and children).

Group size exerts more influence on group dynamics, especially on child behavior, than does ratio. Many effects expected for ratio are found instead for group size. The probable reasons for these results are as follows. Child-staff ratio is an imperfect indicator of staff attention. In a high ratio situation, an adult must distribute his or her time over a large number of children. In a low ratio situation, caregiver time is distributed over fewer children. But ratio is not always a reliable indicator of staff burden because caregivers do not always divide their time evenly among the children in their care. The NDCS analysis of grouping patterns demonstrated that large groups tend not to be broken into roughly equal subgroups even when enough staff are present to allow such division. The lead teacher supervises most of the class while aides rarely supervise sizeable groups. Thus, the effective child-staff ratio in large groups for lead teachers and their aides is often the total number of children present. In addition, preferences for certain children and active and outgoing children who make demands on a caregiver's time usually result in an inequitable distribution of attention. Thus, especially in a large group where there are many adults and many children, a low child-staff ratio does not necessarily guarantee that each child is getting his or her "fair share" of an adult's time.

Although the relationship of ratio to child behavior and test score gains was not consistently strong, more stringent (lower) ratios were associated with more desirable caregiver behavior. It is important to note that the concept of "ratio" as used in the NDCS was not a measure of quantity of adult time given to each child but was instead a "paper" number which indicated the number of adults working in a group of children. As indicated, adults working in groups do not necessarily divide their time equally among all children. The observation data that was collected for the NDCS analysis did not identify each child as he or she interacted with a specific adult. There was no way to analyze then whether those children who received frequent adult attention (which would be a low ratio condition) developed in more positive ways than those who received limited adult attention (a high ratio condition). Thus, there is no way to determine how well children would have fared in a setting where each received 1/3 of each adult's time versus 1/7 or 1/12 of each adult's time. Abt was able to do a facsimile of this type of analysis. In this instance they analyzed activity subgroups (e.g., one teacher working with three children in a room by themselves, one with five children, etc.) and found that the influence of subgroup size is far stronger than group size in the case of the PPVT.* The smaller the subgroup the better the children's scores on the PPVT.

The NDCS findings are important in demonstrating that caregivers do not divide their time evenly among all children, and that ratio does not reflect the amount of attention each child would be receiving on the average in a day care setting. But the NDCS analysis of subgroup activity clearly demonstrates the importance of few children to one adult if the goal is to support child growth. Research indicates that quantity of adult attention as well as quality is necessary to support positive child growth. The amount of attention one adult can "generate" is finite. Keeping the number of children small is the major way sufficient amounts of adult time can be given to each child. This can be done most surely with lower ratios and/or smaller groups. In addition careful supervision and good caregiver training may also lead caregivers to distribute their time more equitably among children.

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*Peabody Picture Vocabulary Test

The National Day Care Study is the most extensive study done of children in center care. (Over 1,800 children in 64 centers were observed and tested; 1,100 parents and caregivers in over 120 classroom groups were observed and interviewed. In addition, another 38 centers were included in the infant/toddler substudy.) Many outside experts in the field of child development, and social science measurement as well as day care worked with HEW and Abt Associates throughout the study to assure that the design and analysis was as robust as possible. Although HEW analysts and others believe this is an excellent strong study because of its scope, thoroughness, and relevance to policy issues, a critical review by other professionals in the field not directly involved in the study will be necessary to further confirm the validity of the findings and their generalizability.

As with any study of this magnitude, this study had its limitations. The study oversampled the policy relevant population of low income children. For example, half the families earned less than $6,000 (1975-76 dollars), half were single parent households and a quarter of the families received welfare assistance. Two-thirds of the children in the centers studied were black. These proportions are more than is found in FFP centers on the average. Generalizing from this study to all FFP centers must be done carefully.

Also the findings on ratio and group size are limited to the range of ratio and group sizes actually observed with sufficient frequency in the study. The range in group size actually observed for children three to five years of age was 12 through 24 and in ratios was 1:6 through 1:12. The study included only a few small groups (12 or fewer) with ratios more stringent than 1:6 (e.g., 1:4) or less stringent than 1:10 (e.g., 1:12)--too few to yield any significant results.

The Relationship between Child Test Score Gains and Group Size

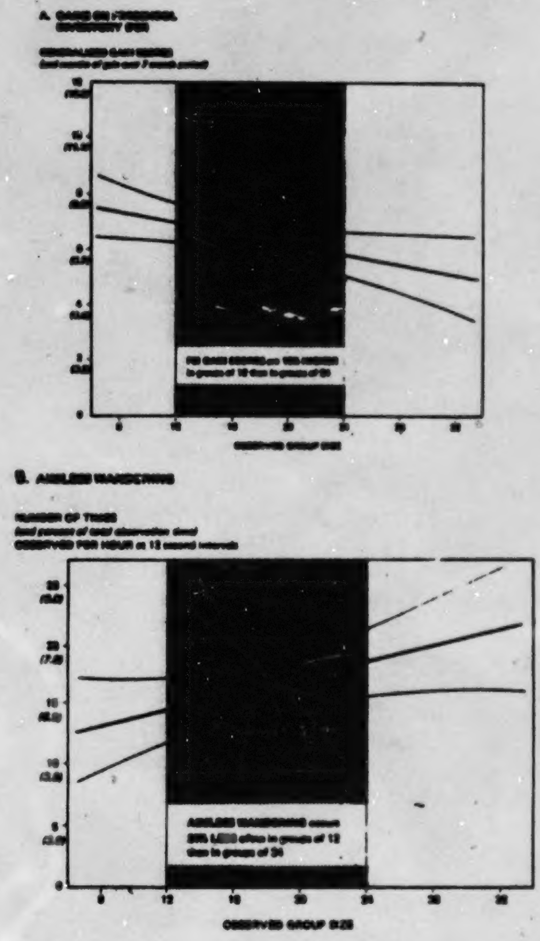


Figure A shows the progressive decline in test score gains that accompanies increasing group size.

Children's gains on the PSI, which has been found to be a predictor of success in school, were higher in centers that maintained smaller groups of children than in centers with larger groups. For example, gains averaged approximately 7.0 points in groups of 12 children, compared to 5.9 points in groups of 24. The difference of 1.1 points represents a 19 percent advantage in growth rate in groups of 12 compared to groups of 24. Since children's gains averaged about 6.5 points over the 7-month period between fall and spring (about .9 points per month), the 1.1 point difference also translates into 1.2 months differential gain over the seven-month period, in groups of 12 compared to groups of 24.

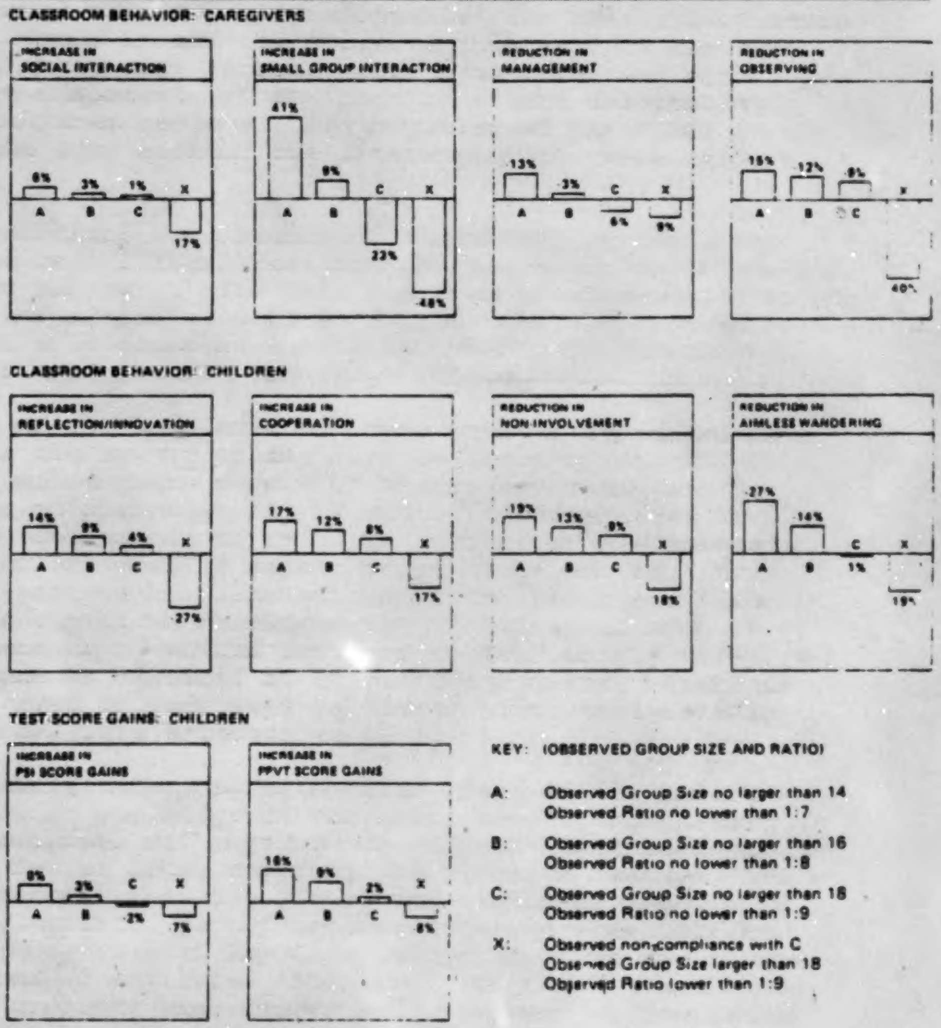
In the Atlanta Public Schools (APS) experiment, a sub-study of the National Day Care Center Study, PSI gains were slightly higher for three-year olds in high ratio classrooms (averaging 1:5.4) than in low ratio classrooms (averaging 1:7.4). Also, natural variations in ratio across the APS classrooms as a group were weakly associated with PSI gains. The more stringent the ratio the higher the gains. The strength of this relationship was substantially less than that found for group size.

PSI gains are large in centers where children are frequently engaged in reflective, innovative behavior. In centers where children are allowed to wander aimlessly uninvolved in tasks-activities, PSI gains are small. This illustrates one link between the many positive child behaviors fostered by reasonable staffing requirements and outcomes on test scores.

Source: The Final Report of The National Day Care Study Children At The Center ; Abt Associates; Cambridge, Mass.; pages 92 and 94.

Table excerpted from : The Final Report of The National Day Care Study Children at the Center; Abt Associates;Cambridge,Mass. page 150.

Figure 8.1 Impact of Alternative Preschool Classroom Composition Policies on Caregiver and Child Behavior and Test Score Gains [a]
(Percentage Increase or Reduction from NDCS Average [b])



KEY: (OBSERVED GROUP SIZE AND RATIO)

A:	Observed Group Size no larger than 14 Observed Ratio no lower than 1:7
B:	Observed Group Size no larger than 16 Observed Ratio no lower than 1:8
C:	Observed Group Size no larger than 18 Observed Ratio no lower than 1:9
X:	Observed non-compliance with C Observed Group Size larger than 18 Observed Ratio lower than 1:9

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[a] Figure 8.1 is intended to illustrate the direction of relationships between each policy option and selected measures of quality as well as the consistency of the pattern of results that emerged across different outcome measures. Corrections for imperfect reliability of measures would have resulted in even larger effects than shown here.

[b] Program quality measures were determined with centers in *full compliance*, defined as (1) no centers that violate classroom composition regulatory minimums, (i.e., with groups too large and ratios too low) and, (2) no more than 12 to 15 percent (on average) more caregiving staff per center than the regulatory limit (A, B and C only).

Findings on School-Age Children

There are no reserach data that suggest what the ratio and group size should be for school-age children in day care of any kind, and there is no expert consensus concerning appropriate ratios and group sizes for this age group in center care. (See Educational Services section for additional discussion of school-age day care.)

The research on school-age children in school contexts finds no significant impacts from student-teacher ratios (Coleman et al., 1966, Equality of Educatonal Opportunity). However, the variations in pupil-teacher ratio were quite small and it is likely that any significant impact on cognitive skills from low or very high ratios would have been overlooked. Of course, school-age day care is not the same thing as school. The former attempts to provide surrogate care and supervision while the parent is at work, the latter concerns itself primarily with the child's cognitive development. It is questionable that the results of the research cited above should carry any weight in discussion on ratios of school-age day care.

- A group of school-age day care experts, when queried, stated that no more than six children aged five to 14 should be cared for at any one time in family day care (this includes the provider's own children), (Bergstrom, 1976).

- Parents with school-age children in care indicated they would support the present FIDCR group size for their six to 13 year old children in family day care but wanted a slightly more stringent ratio for the same age child in center care than the present FIDCR allow (Westat, 1977).

Little is known about school-age day care--even expert opinion is limited. Few descriptions exist of programs that consumers find to be satisfactory. If these were identified, analysts could then examine the ratio operating in those programs. Parents when surveyed demand lower ratios than the FIDCR now provides for this age group. They also want more government money spent on before and after school programs. Before firm conclusions can be reached regarding the appropriate ratio and group size for school-age day care, much more research and discussion with child development experts, parents and others must be done.

Size in Centers Encompass a Range of Three Years

Evidence in the field suggests that there is a great deal of variability in the ages of children grouped together in center classrooms. The NDCS Supply Study indicates that, in 80 percent of the center classrooms, the variability in the ages of children grouped together is one year or less. Twenty percent of the classrooms, however, have an age range of two years or greater. (Age range equals the age of the oldest child minus the age of the youngest.)

Child-staff ratios as currently in effect are age-specific and linked to a specified group size. Groups increase in size for older children. Given the age variability in classrooms, which group size applies in a mixed age setting to determine compliance with the present FIDCR? Some centers use the group size applicable to the youngest member of the group. Others use the group size applicable to the oldest child. There is then a possibility that the group size recommended for the oldest child will result in a group size that proves to be overstimulating for the younger children. For example, a group size of 15 is allowed in classrooms containing three year olds. These classrooms also may contain some 12 to 15 month old children who could be overstimulated by the number and activities of the children present. There is no empirical evidence which lays out the correct group size for various combinations of ages present in day care programs. However, the fact that this variability in age exists in center classrooms and the fact that 37% of the centers in this country exceed group size requirements in at least one if not all classrooms 13/ should alert those considering new day care requirements: this problem should be taken into account when group size is specified. And, when multiple ages are grouped, it must also be made clear how the group size is to be selected.

13/ This determination was made using the group size specified for the youngest child in the group.

IMPLICATIONS FOR REGULATIONS

Child-staff ratios guarantee very little by themselves. As stated earlier, even a 1:1 ratio does not insure quality care if the caregiver is incompetent and insensitive, whereas a skilled, sensitive caregiver may be able to work effectively with many children if the environmental situation is manageable. As this illustrates, ratio by itself is not the decisive component of day care. Ratio and group size interact with each other and with other core components of day care to affect the quality of care children recieve. Any revision of the FIDCR should take into account the interaction of these components.

In addition, in considering the impact of ratio and group size on children, care must be taken not to define impact too narrowly. The full spectrum of elements, personal and social as well as intellectual, that make up a child's development should be taken into account--at least as far as present knowledge allows.

Most of the completed day care studies described thus far assess the impact of day care in terms of cognition. Cognitive enhancement generally begins appearing and is measurable at approxiamtely 18 months. Differences in cognitive development of children in various environmental settings do not usually appear prior to 18 months. This is due in part to the limitations of the tools available to measure cognitive development. In addition, most of the evidence on cognition pertains overwhelmingly to intelligence as measured on standardized tests. There is an urgent need to seek ways to assess functional intelligence in real life settings as well.

Decisions on appropriate child-staff ratios should not be made on the basis of cognitive development alone; social, emotional and physical development must be examined as well. Yet to date, experimental research has provided little information on the social and emotional impacts of child-staff ratios, partly because of measurement difficulties. The National Day Care Center study is one of the best sources of empirical evidence. The third phase of the study involves some randomized treatment and manipulation of child-staff ratios. This ought to generate less equivocal inferences than in the past about the causality attached to ratios. Moreover, the National Day Care Center study deals with a broad array of process and outcome variables, so that our knowledge about noncognitive effects should be greatly expanded.

Ideally, one would attempt to locate the exact point on the day care continuum below which a given child-staff ratio and group size cause measurable harm and above which development is supported. That is impossible to do, however, in part because of the multitude of variables one must deal with in day care, and in part because there are few agreed-upon definitions of "harm." Indeed to many advocates of developmental day care any failure to provide support or stimulation for social, psychological, or educational development--any missed opportunity to exert positive influence--constitutes harm.

It is evident that there are some gaps in the current FIDCR as they relate to ratio, group size and age mix. The FIDCR lack any clear statement regarding what group size should be applied when children of mixed ages are grouped in one classroom in a center. This is of concern to many day care observers because when young children are included in groups with older children, the FIDCR might be interpreted to allow the larger numbers associated with the older children. In addition, 37 percent of the centers in this country exceed group size requirements in at least one if not all classrooms in the center. And since no group size has been set in the FIDCR (nor in many State licensing codes) for children under three and many day care experts feel that more age breaks are needed for children under three than currently exist, ratio and group size would have to be determined for these new categories. 14/ These gaps are only illustrative. If the FIDCR are revised, it is suggested that the following issues also be considered.

14/ In addition, the NDCS Infant Day Care Study found that, although the FIDCR specify lower ratios (fewer children per caregiver) for infants and toddlers than for preschoolers, which would usually make their care more expensive, centers generally receive the same reimbursement rate for these groups as they do for preschoolers.

Ratio Fluctuations

In real life day care situations staffing ratios are not static and thus elude easy measurement. As one finding from the National Day Care Center Study already shows, center ratios fluctuate over the course of a day. This is not necessarily a problem: common sense tells us that no single ratio is optimal for an entire day. When children are napping, for instance, the full contingent of care givers need not be present. In other situations, however, a more stringent (lower) ratio than might seem appropriate at first glance may actually be needed for best results. For example, many centers allow some staff to take a break while children are playing outside. Yet a low child-staff ratio may be needed here to work with children who are particularly active and who can best learn through large motor activities (communication with Alice Honig). The National Day Care Center will not be able to address in great detail the impact of the daily fluctuation of ratio on individual children, because the data on all children has been aggregated and is being analyzed at the center level. In addition, the child observations in this study were conducted in the morning. Several other unanswered questions suggest themselves if fluctuating ratios are considered in tandem with caregiver skills. For example, is it better to have fewer highly skilled caregivers present all day long, or would it be better to increase the number of caregivers by employing paraprofessionals and then paying one skilled professional to oversee them? Or could skilled staff and some paraprofessionals work during the mornings only, while fewer less skilled staff work in the afternoons? Viewed this way, ratio needs look different for different periods of the day and the present requirements do not reflect this.

The findings from the NDCS study regarding fluctuating ratios seem to indicate that, if center ratios are to be regulated and monitored, the method of measurement should be more precise than the present FIDCR and should be sensitive to the natural and frequent fluctuations that exist in center care. The NDCS will provide useful information and guidance for developing these measurement techniques.

Age-Specific Child-Staff Ratios

Beyond the general question of ratios, the age specificity of the FIDCR staffing requirements must be assessed for their appropriateness. Do the current age specific FIDCR ratios support caregiver-child interactions which fall at the minimum care end of the day care continuum or at the developmentally enriched end of the continuum? Most of the studies discussed up to this point focused on children three years and under--with the exception of the NDCS study--and those conducted in day care settings were carried out in center situations. Very little has been said up until now about family day care homes.

For infants and toddlers still unsteady on their feet, ratio is a clear safety issue. A sufficient number of caregivers must be present to carry the children to safety in case of fire or other hazard. The HEW model day care licensing codes state that in family day care homes the number of children under the age of 36 months should be limited to the number that could be carried in case it becomes necessary to evacuate a building. The FIDCR requires one caregiver per child for infants from birth to six weeks of age in centers, and no more than four children per caregiver for children between six weeks and three years of age. A 5:1 ratio is allowed in family day care homes for children zero through six years, with no more than two children under two years of age allowed. If no children are under two years old the ratio is 6:1. The center ratio of 4:1 may be questioned in terms of the physical danger which may occur in the case of fire with a caregiver responsible for carrying out four infants between six weeks and one and a half to two years of age.

In family day care it might appear, at first glance, that a caregiver when threatened by fire should be able to carry two infants under each arm while shepherding ahead of her three other children who may all be just a little over two years old. While this might be possible in a single family dwelling, what about the 25% 15/ of family day care mothers who live in multi-unit dwellings? Approximately a third of these live in large apartment

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15/ Westat 1977, Family Day Care Home Probability Survey (unweighted).

buildings and must contend with long hallways and steep flights of stairs. The real prospect of problems occurring in case of fire or other hazard is reduced somewhat by the fact that the average family day care home contains no more than 2.4 children (excluding her own). However, while the average of 2.4 is less than the maximum allowed (six children under six years of age) the majority (56%) of those children are under three years of age. In addition, 80% of family day care home mothers have their own children three years old and younger at home. 16/ Moreover, the issue of physical risk in family day care homes involves more than just fire. How about a provider shepherding her young charges up and down flights of stairs and down city streets to the playground? Or what about the opposite of this situation--the provider who keeps all these children indoors in one room all day long because it is so difficult for her to take them outside? Is 5:1 reasonable if two children are under two years of age and the rest are just over two or are active, exploring three year olds? Is 6:1 reasonable if all six are active three year olds? The age of the caregiver is also a factor here. A young vigorous caregiver may be better able to handle five or six young children than an older woman.

Age Mix

Age mix is not addressed in the Federal Interagency Day Care Requirements, except as it applies to family day care. For those settings the regulations specify that no more than two children under two, and no more than a total of five may be in care. Or, no more than a total of six children may be in care if the age range is three through 14. This regulation appears to address, in negative fashion, the issue of age mixing in day care. While there are clear safety reasons for permitting no more non-walking children than can be safely evacuated in an emergency there are other aspects of age mixing that deserve consideration. The benefits that accrue to younger children who are allowed to observe and participate in the play and activities of older children do not appear to be considered, nor do the benefits to the older children who must "learn"

16/ Westat, 1977.

to modify their behaviors when playing with younger children. In center care the practice is to group children of similar developmental age together. There is usually an infant room, a toddler room and a room with preschoolers.

The only research study that has been identified which considers the effects of "vertical age groupings" in family day care settings is the West Virginia Family Day Care Home Study (1977). Ristau, the chief researcher for this project, found that the ages of the children in care seem to cause major differences in the patterns of behavior exhibited by providers. For children of different ages different behaviors occur more frequently both in absolute number and with respect to the other provider behaviors. Furthermore, caring for more than one age category affects both the frequency of behavior and the child to whom the behavior tends to be directed.

In this study providers who care for younger children tend to exhibit more affection and holding than do providers who care for older children. Providers who care for older children spend more time playing interactively with the children, asking questions, and guiding or directing the children's behavior. These providers also spend more time exhibiting slightly more negative behaviors than do providers who care for younger children. These generalizations are true when comparing infants to toddlers or preschoolers, and when comparing toddlers to preschoolers.

This study also suggests that when preschoolers are in care with infants, the amount of vocalizing, affection and holding directed by the provider towards the infant is greater than when the infant is the only child in care. When preschoolers are in care with toddlers, less affection and vocalizing are directed by the provider to the toddlers than when toddlers are the only age category in care. Similar data do not exist to compare the effect on toddlers of having an infant in care.

When interpreting this data on provider behaviors with different groups, it is extremely important to treat the data as suggestive, some of which may offer guidelines for research designed specifically to answer questions about group size and age-mix. The West Virginia study was not designed for that purpose and, therefore, does not have some desirable features such as providers of similar competence working in a variety of combinations of group size and age-mix.

Honig and Lally (1976) found age mixing in their center setting resulted in such positive outcomes as more individualized attention and responses to each child by the caregivers. In addition, mixed age groupings allow for stability and continuity of care for a given child as he remains in the group for a number of years. The age range in these classrooms was 18 months through five years. When Honig and Lally attempted to introduce children younger than 18 months to the mixed age setting it did not succeed. Caregivers were physically burdened with the younger children, many of whom had to be carried about. It was also found that including children younger than 18 months in the group forced the caregivers to spend much more time dealing with this age group than with the older children in their care. This supports the Ristau finding.

In summary, there is only a limited amount of research on the age mixing of children in day care facilities. The findings from the one family day care home study are equivocal. The center study is more positive about the benefits of age mixing, especially in regard to the individualized responses caregivers made to the children. Apparently the mixed ages of the children made it difficult for caregivers to treat them as a "group" as they might have done had the children all been the same age. The effect of age mixing on caregiver behavior in the center would appear to be positive. Much more research specifically designed to establish the benefits of age mixing in center settings and family day care homes is needed.

Group Size and Ratio in Family Day Care Homes

The impact of ratios has rarely been studied in family day care settings. One study of urban family day care homes found that one adult caregiver is present in 88% of urban family day care homes, two or more in the other 12%. In only 2.3% of family day care homes does the primary caregiver have a full time assistant (Westat, 1977), the remainder include another individual who assists part time. Because so few homes contain multiple caregivers, the few studies which have been done in family day care settings focus on group size and age mix of children.

So little research has been done in family day care home settings that insufficient experimental evidence exists to assist in determining the maximum group size and age mix for which one family day care provider can care effectively. Parents generally would prefer a group ceiling that is more stringent (lower) than the present FIDCR (Unco, National Childcare Consumer Study, 1975). The National Day Care Home Study (Westat, 1977) found that the average group size in regulated homes is only 4.94 children, even when a family day care provider's own children under 14 are included in the number of children in care. This is still within the number allowed by the FIDCR.

However, some homes currently exceed the ceiling or will exceed it in the summer when all the caregiver's children are home from school (or if the caregiver gives birth to an additional child of her own, resulting in too many infants in care). When ceilings are exceeded, agencies are often forced to shuffle children from one home to another, risking a negative impact on the child because of the disruption in continuity of care by a particular adult. Many agency administrators agree on the need for a ceiling in family day care. Understanding that exceptions arise, however, they do not want the responsibility such a ceiling should be waived. They argue that although they, as individuals, might feel comfortable determining when an adult can safely care for an additional child, they would not trust the next person's judgment. One suggestion they make to solve the problem is a system of substitute caregivers. The substitute could pinch-hit when needed or come in for an extended period of time to work with the family day care provider who is over ceiling. This would protect continuity of care for the child.

Group Size and the Family Day Care Provider's Own Children

Current information (Westat, National Day Care Home Study, 1977) indicates that:

- 59 percent of family day care providers have no children of their own under six at home.
- Approximately 12.5 percent of family day care home providers (regulated and unregulated), use assistants; only 2.3 percent use assistants full time. The majority of all these assistants are the caregivers' own older children.

The 1968 FIDCR require that family day care providers must include their own children under 14 years old when determining maximum group size. However, legislation that expired Oct. 8, 1978, allowed States not to count the family day care provider's own children who are over six years old when determining maximum group size. No research has been done to assess how the presence of a provider's own children affects the provider's care of other children, nor how the presence of other children impacts on the provider's children.

The Family Day Care Home Profile (September 1977) shows that in those homes which claim to have assistants (12.5%), 60% are the caregivers' own older children. Does this use of the caregiver's own children as assistants benefit all the children concerned? Research is needed to determine whether the role these older children play as assistants should be accepted in measuring compliance with the requirements. If assisting their mothers is beneficial to these children themselves, as well as to the other children, than at what age should they no longer count against the ceiling imposed on group size?

Existing research data do not resolve this very sensitive issue, which impacts both on the quality of care children receive and the amount of income caregivers can expect to realize from their work. More evidence should be gathered on this issue.

Handicapped Children

Although the FIDCR recognize the need for variations in child-staff ratio when some handicapped children are included in family day care homes, there is no requirement for centers that serve handicapped children. There are no data that suggest what the ratio and group size should be when a handicapped child is included in care. The Bureau of Education for the Handicapped suggests that this requires a case by case decision based on the specific needs of the child and the nature of the facility.

The information available on the number of handicapped children in Title XX day care is limited and for the most part is based on provider assessment rather than on professional screening.

- A survey of family day care providers (Westat, National Day Care Home Study, 1977) indicated that 1.8 percent of the children in the homes queried were viewed as handicapped by the providers.

- The NDCS Supply Study surveyed only those centers in which the predominant number of children were without special needs: 38 percent of these care for at least one child identified as either physically or emotionally handicapped or mentally retarded. The number of handicapped children in these centers ranged from one to 62. Of the 900,000 children in care in all day care centers, 28,000 (3 percent) were reported as having one or more handicaps (11,000 physical, 12,300 severely emotionally handicapped, and 4,700 mentally retarded). It should be noted, however, that this information was collected through telephone interviews with the directors and has not been verified by professional screening of the children (Abt, NDCS Supply Study, 1977).

- The Bureau of Education for the Handicapped sponsored on site screening of children in Title XX day care in urban and rural Tennessee. The screening instruments used were the same used for Head Start screening in that State. Only speech, language, and hearing deficiencies were screened. The findings were the same as those in Head Start. Among the children in Title XX day care in that State: 11 percent were found to have speech and language disabilities and 9 percent were found with hearing disabilities.

Thus, the present FIDCR grouping requirements may be limited in their ability to insure the well-being of children with certain handicaps.

Volunteers

Volunteers are necessary in day care and can play an important role in assisting caregivers. The FIDCR call for the inclusion of volunteers to supplement the paid staff, but the FIDCR do not clearly indicate whether these individuals should be counted as staff in the required child-staff ratios. 17/

Volunteers represent a wide variety of resources for caregivers. In family day care settings, they are often the provider's older children. In centers, they are often teenagers. Teenagers are especially popular with day care providers because "they get down on the floor and play with the children," as one provider put it. Some volunteers are trained and some are not; some are college students in child development curriculums, others are well meaning but inexperienced people. Some full-time "volunteers" receive subsidies from another program--most often CETA.

The following findings from the NDCS Supply Study indicate the scope of the issue of whether volunteers should be counted in the child-staff ratio:

- 60 percent of all centers have no volunteer staff.
- In over half of the remaining centers there are no more than three volunteers.
- 13.9 is the mean number of hours worked per week by volunteers (Abt, 70-Site Validation Study, NDCS Supply Study, 1977).
- 27 percent of volunteers work over 35 hours a week (this is the group that probably is subsidized by CETA and other programs and is not composed of volunteers in the strict sense of the word).

Expert opinion, and views solicited in a survey of day care workers, argue against counting volunteers as part of child-staff ratio because volunteers have a high turnover rate and often work only a few hours a week. Early childhood experts believe that children under two years of age require continuity of care by a few--and

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17/ Jule Sugarman, former head of the Office of Child Development, HEW, indicated in an interview (Cooper, 1976) that the original intent was to count volunteers along with paid staff, and thus save the facility money while maintaining a low child-staff ratio.

the same--individuals. Care by too many different adults may be emotionally detrimental to these children. That point suggests that the use of volunteers should be kept to a minimum in infant classrooms (Riccuiti, 1975).

At the same time, volunteers who work at the same facility on a regular basis, work a substantial number of hours each week and who perform some or all of the tasks of regular staff might well be included in the child-staff ratio. For example, the employment of CETA workers 18/ is guaranteed for an extended period of time; they might well be included as staff. There might be many other cases in which the volunteers clearly meet all of the criteria by which staff members are defined.

The FIDCR should take into account the differences in volunteer work in day care, and consider for inclusion in child-staff ratios those volunteers who work a certain number of hours each week on a regular schedule.

18/ CETA workers receive compensation through the Comprehensive Employment Training Act funds. However, some centers refer to these individuals as volunteers because the center does not use its own funds to compensate them.

II. CAREGIVER QUALIFICATIONS

This section discusses two components of day care: (1) entry level skills, or level of professionalism, required of day care personnel who work with the children (family home providers, center directors, lead teachers and other caregivers), and (2) inservice training requirements for these individuals.

PROVISIONS OF THE FIDCR

Entry Level Requirements

Entry level requirements for day care personnel (academic degrees, experience, and specialized training) are not a separate component of the FIDCR. Rather, references to staffing characteristics or professional qualifications are scattered throughout four separate components: Educational Services, Social Services, Health and Nutritional Services, and Administration and Coordination. Moreover, these references to professionalism are vague. The Educational Services component, for example, requires only that caregivers or those persons in direct contact with children be "trained" or "experienced", or have a "demonstrated ability" to work with children. 1/ These terms are not defined and no distinction is made between formal education and other types of training, such as workshops and supervised internships. Questions that come immediately to mind involve the kind, extent, and specialized nature of training and experience considered adequate for caregivers as well as supervising personnel, and the criteria

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1/ This is the only component that attempts to define the qualifications of the caregiving staff, yet this requirement is no longer mandatory for Title XX programs.

that should be used for judging "ability to work with children." The FIDCR specify no qualifications for family day care providers or in-home caregivers.

Inservice Training

Inservice training is a separate component of the FIDCR. The most important aspects of this component are that (1) continuous training must be provided all staff (professionals, nonprofessionals, and volunteers); (2) someone must be designated responsible for the training program; and (3) opportunities for career progression--job upgrading--must be given nonprofessional staff. The regulations do not specify how inservice training should vary, if at all, to deal with the differing levels of education and child care experience within the teaching staff, and the supervisory staff in centers. This regulation was written with institutionalized, center-based care in mind--and perhaps groups or family day care operated by an administrative agency. It is not clear how and by whom independent family day care providers are to be trained. Further, neither the term "nonprofessional" nor "continuous" is defined.

THE CAREGIVER TRAINING COMPONENT IN PRACTICE

Caregiver Qualifications

According to the NDCS Supply Study education and experience among day care center staff break down as shown in Table 2.1 (FFP and non-FFP centers are basically similar in terms of staff education).

The National Day Care Home Study (Westat, 1977) of family day care providers revealed that:

- 32 percent of the family day care home providers had less than a high school degree.
- 44 percent were high school graduates.
- 24 percent had some college.
- 43 percent had over 4 years of experience providing day care.

TABLE 2.1 Degrees Held by Job Description, Distribution of Center Caregivers 1/
Percent of Caregivers Holding Degree 2/

Job Description	None	High School	Vocational/ Technical	Associate Degree	BS/BA	MS/Ph.D.
Directors	5.4	54.5	7.3	9.1	45.5	16.4
Assistant Directors	0.0	87.5	12.5	0.0	25.0	12.5
Head Teachers	8.6	71.4	2.9	20.0	31.4	11.4
Teachers	15.9	56.3	2.9	12.5	29.3	8.2
Aides	26.3	61.7	6.6	4.8	4.8	0.5

1/ Percentages may total more than 100 due to multiple degrees.

2/ Based on information gathered from on site survey.

Caregivers employed in day care centers have, on the average, more education than family day care providers. The educational distribution of family day care providers is the same as the general population of women of child-bearing age, with no real differences between regulated and unregulated family day care providers on this dimension.

State Licensing Specifications for Caregivers 2/

Some childcare experts argue that in center care only the director and perhaps the lead teacher need to have formal academic credentials in child development or related areas. State licensing requirements for center directors reflect this attitude:

- Thirty-two States plus the District of Columbia require center directors to have a baccalaureate degree with specialization in child development or at least 2 years of college with specified amounts of course work in child development.
- Five States require only experience plus specified amounts of course work in child development.
- Four States require only a high school credential.
- Nine States require no formal academic credential or experience.

It is worth noting that only six States mention management skills as a prerequisite for the job of center director.

State licensing requirements for head or lead teachers in day care centers are similar to those for directors. Requirements for aides and other teachers vary from a minimum age requirement combined with an ability to read and write to a high school degree combined with some course work in child development and/or prior center experience.

2/ A new study on State licensing specifications, The Comparative Licensing Study, is due shortly. It is sponsored by ACYF in HEW.

State licensing requirements for family day care providers differ substantially from those for center caregivers in terms of the amount of formal course work required in child development. The family day care provider requirements usually involve an annual TB examination [3] and a minimum age requirement--usually 18. In addition:

- Six States require that caregivers be able to read and write.
- Five States (Georgia, Massachusetts, New York, Ohio, and Vermont) require training or demonstrated ability to work with children.
- Twelve States require no license if the number of children in care is below a State-set minimum, usually three.

The level of education of caregivers in centers is much higher than that of caregivers in either regulated or unregulated family day care homes. When center directors who spend time caring for children are factored in as part of the caregiving staff, the level of education climbs even higher. Fewer directors than staff members, however, have degrees in education. If this formal credential is the one used to meet State requirements for training in child development, it would appear that some directors are not in compliance with State standards regarding qualifications.

It is not apparent from available State licensing requirements whether child development training must be concentrated in the age categories of children with whom the individual will be working. The relevance of an elementary or secondary education credential for those working in a nonschool setting predominantly with children under age 6 could be questioned. The educational data available on directors and staff cannot be broken down any further. It may be that the other advanced degrees they hold are in child-related areas.

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[3] At least one State, North Dakota, has a law prohibiting annual TB examinations. This is to minimize unnecessary exposure to X-rays.

Current Implementation of the Inservice Training Component

The quantity and quality of inservice training vary greatly from program to program. Survey data suggest that limited emphasis has been given this component by program and Government agency administrators.

No on site evaluation has been made of the type (quality and amount) of inservice training currently offered in day care centers (more specifically, Title XX centers), or by agencies for regulated family day care providers. Thus, it has not been possible to identify the most effective training models. Although assessments have been made of individual training efforts, it is not possible to compare results across studies. Day care observers agree that inservice training in Title XX day care centers takes many forms. In some cases there is none at all. In other cases there may be some course work at a community college, directors may run workshops, childcare experts may be brought in from universities for a workshop or two or there may be CDA-style training with course work and field supervision. Paraprofessionals may sometimes train family day care providers in their homes or family day care providers may go to nearby day care centers for training.

- Directors interviewed in the National Day Care Infant Study complained that there were few, if any, training packages or community college or university programs available to them that were relevant for caregivers working with infants and toddlers. Most available programs focused on preparing preschool teachers.

- In the National Day Care Cost-Effects Study (64 centers), two out of five caregivers had received formally supervised on-the-job training. The quality of this experience was not assessed.

There is no information presently on the number of family day care providers or in-home providers across the nation who are participating or have participated in an inservice training experience. The Westat survey (1977) of family day care homes found that 64% of the family day care providers associated with a sponsoring agency (public & private) claim to have received some inservice training as a result of that affiliation. The National Family Day Care Home study which is in process will attempt to identify training as a variable affecting caregiver behavior. The only information available on center care comes from the National Day Care Cost-Effect Study (NDCS). Because of the number and variety of training programs available at the three NDCS study sites, it was not possible to compute a single variable representing the overall amount of training a staff member had. Instead data were grouped under broad headings. Using this technique, two-thirds of the staff had at least one inservice course or other training experience while two out of five claimed to have had formally supervised on the job training (n = 672 caregivers). Training proved to be a particularly difficult variable to define and measure precisely. Training courses vary widely in content, format, duration, intensity and quality. Even with detailed probing, it was not possible to elicit training information in a form that permits comparison across different programs, or that permits construction of a summary index. An obvious regulatory implication is that it will be difficult to write training standards that work well in varied environments. It will also be impossible to guarantee the quality of inservice training through regulation until specific parameters can be defined for this activity.

Parental Expectations Regarding Caregiver Qualifications

What value do parents who use day care place on caregiver professionalism?

On the basis of results from Unco (1975) and preliminary data from the National Day Care Study (Abt Associates, Inc., 1977), it appears that parents place a high value on the professionalism (including experience and training) of their caregiver and consider it an important element in selecting child care. The Unco study, as noted earlier, questioned users of in-home care, family day care homes, and nursery schools or day care centers on what they considered to be the most important factors in selecting their mode of care. Although the wording of the "factors" varied somewhat, e.g., users of day care centers and nursery schools had the option of selecting "well trained staff" while in-home care and family day care home users were given the option of choosing "experienced caregivers", the experience or training of the caregiver was seen as an important factor for all modes of care. Center day care users, in fact, gave "well trained staff" the highest rank of all. Users of in-home care and family day care homes, however, ranked "experienced caregiver" lower--fifth and sixth, respectively.

Preliminary results from the National Day Care Center Study's parent interviews, administered to day care center users, indicate that "Parents believe strongly in the importance of trained and experienced caregivers." The parents emphasized the need for caregivers to prepare their children for grade school and to provide good supervision and discipline of children in care. Most respondents identified elements of personal styles as the most important characteristics of a good teacher; in particular, patience and understanding of children's needs. Warmth and affection for children were also noted. Only 20 percent of the respondents stressed experience in day care and college education as essential elements of good teaching. Yet when asked to indicate ways in which they would like to change their center, half of the parents felt that their centers needed a "few more trained and experienced teachers."

Child care consumers also indicate interest in in-service training for caregivers but rank it third in a list of six options for which they would "most like to see funds used" (Unco, 1975). The options to be ranked included a referral service where parents could get child care information, assistance to establish additional child care facilities, summer programs, before and after school programs, a monitoring system to check on caregivers and facilities, and training programs for caregivers. Since the study surveyed households with children under 14 and only a small portion of that sample used formal child care, it would be expected that in-service training would be of little interest to most respondents. A sample of users of formal day care might well respond more strongly in favor of training.

EVIDENCE REGARDING THE APPROPRIATENESS OF A TRAINING REQUIREMENT

Only a limited amount of quality research data exist which are definitive with regard to the differential effects of various kinds of credentials, inservice training, and experience on caregiver behavior. Data linking caregiver behavior to child development are also very limited. However, analysis of existing data as well as opinions of individuals working in day care suggest that (1) specific caregiving skills are needed to support the well-being of the child, (2) training can be used to promote these skills, and (3) training is essential to refine or improve current caregiver performance whether in family day care situations or in center care facilities. Inservice training appears to be essential for all caregivers regardless of the amount of experience or preservice education they have had. Many day care observers believe that inservice training helps insure that caregiver motivation remains high and that caregiving does not become routine or dull.

The Importance of Competent Caregiving

Research evidence and expert opinion support the conclusion that children's social, emotional, and cognitive development is significantly influenced by the adult care they receive. The characteristics of competent caregiving that support positive development in children have been identified in the empirical findings of some parenting and day care studies. These characteristics are also reflected in most caregiver training programs.

Innumberable lists have been compiled of skills which are thought to be essential for those who care for young children. (e.g., Dusewicz; Project Pride; Child Development Associate Consortium (CDA); Zaccaria, Texas Day Care Study, 1976). However, experimental validation of these competencies as having any short or long term impacts on children, when performed by caregivers, has not yet been done.

These competencies, which recur with each new attempt at defining caregiver characteristics and which, in the case of CDA, were arrived at with the input of hundreds of "experts" who were involved in some aspect of child care or child development, certainly have face validity (i.e. acceptance or approval by experts) if not experimentally tested validity.

On the other hand, validated competencies have emerged from a mass of empirical research on parenting behaviors which promote positive child development. The qualities of adult care that support competency in the development of children are best summed up by Clarke-Stewart (Child Care In The Family), Academic Press, Inc., 1977. These are: "stimulation (from things and people), appropriateness (level and schedule adapted to the individual child), variety (in language, people, toys), acceptance (reasonable limits, firmly but gently enforced), responsiveness (prompt, consistent, elaborative responses to the child's behaviors), and affection expressed verbally, facially, physically). As the child gets older, it seems that adult behavior should increase in level of complexity, scope of responsiveness, and span of interactive and affective distance. Also the amount of freedom, privacy, and independence the adult allows the child to explore his or her own interests should be increased." It should be noted that Clarke-Stewart developed this list after analysing empirical research of parenting behaviors. These behaviors are essentially the same as those identified in the caregiver training projects mentioned above. The fact that there is such agreement regarding caregiver competencies, regardless of whether parenting data or the opinion of day care experts is solicited, indicates that there is a set of identifiable behaviors which affect child development. These behaviors should be promoted for child caregivers.

Research and expert opinion clearly show that a child's psychological development is significantly influenced by the adult care he or she receives. Language development (which is the best predictor in infancy of later measures of intelligence) is accelerated and facilitated by frequent verbal stimulation by an adult when the adult's speech is varied, relevant to the child's activity, and appropriately complex (Yarrow et al., 1975; Cameron et al., 1967; Moore, 1967; Haugan and McIntire, 1973; Rheingold et al., 1959; and Weisberg, 1963). Cognitive development is enhanced by frequent caregiver looking, talking, and playing, as well as providing and manipulating inanimate materials, instructing, and responding in a sensitive and timely manner with and to the child (Yarrow et al., 1975; Carew, 1976; and White, 1975). Social competence depends first on frequent affectionate and responsive interaction with primary caregivers (Clarke-Stewart, 1977). These adult caregiving skills can be developed through proper training.

The consensus is that individuals employed in day care should possess the competency and motivation to interact with their charges in the manner described above. This is especially critical when working with children under three years of age because their well-being is much more dependent than that of older children on the adult being a competent mediator of their environment. Research suggests that until approximately the age of two-and-a-half, the child's most valuable intellectual experiences are derived from the interaction with an adult who teaches, helps, talks with, and entertains the child. Only after this age are the child's self-initiated interactions with their physical environment related to intellectual competence (Carew, 1975; Ainsworth, 1969a, b; Bayley, 1965a, b; Caldwell, 1967; Clark-Stewart, 1973; Bayley and Schaefer, 1964; and Tulkin, 1970).

The Impact of Training on the Caregiver

Individuals with vastly different training backgrounds and skill levels enter the day care profession. 55% of center classroom staff have advanced schooling beyond high school. However, this education is not necessarily in child-related fields. Some have elementary school or kindergarten teacher training credentials which do not necessarily prepare them for day care. Others have no formal credentials or experience but may have reared children of their own. In the National Day Care Center Cost Effect Study, 56% of the caregivers had no prior child care experience except baby-sitting. Those who worked on the FIDCR foresaw this problem and chose to meet it by requiring continuous inservice training and supervision of all staff. Many child care professionals (e.g. Prescott and Jones, 1967; Sale et al., 1972; Sale, 1977; Ricciuti, 1976; Meyer, 1976; Provence, 1977; Wattenberg, 1974) call for inservice training to promote competent caregiving. However, can an individual's caregiving behaviors be changed or improved upon by training? Can competent caregiving be taught?

Experimental studies of inservice training are few and usually subject to methodological difficulties. However, evidence seems to indicate that at least some types of training can be effective for some adults.

The studies reviewed involved both day care provider training and parent training projects. Extrapolations concerning optimal teaching techniques and statements of impact made from parent training to caregiver training are done with the caveat that caregivers may not constitute as highly motivated a sample as parents. Caregivers may not be as amenable to training as parents are. And, even when trained, caregivers may not, in everyday practice, treat the children in their care in the same manner as they would their own children.

Louise Miller's "intervention" project (Miller and Dyer, 1970, as reported in Chapman and Lazar, 1971, and in Gordon and Jester, 1973) involved training 14 teachers in one of four different preschool program models. The teachers differed widely in such variables as experience, personality, and intelligence. Observation of teacher behaviors revealed that program differences clearly emerged in the teaching techniques used by teachers, even though there was variability among teachers within any model. The four to eight weeks of teacher training did seem to shift teachers toward the program norm (Gordon and Jester, 1973).

Soar (1970), also reported by Gordon and Jester, gathered data on several systematic observation schedules across seven of the Follow Through projects. One of the questions he was asking, like Miller above, was whether it is possible to determine through observation of teacher behavior the reliability with which a program implements what it intends to do to teacher behavior. His results indicate that there are several Teacher Practices Observation Record factors which identify teacher behavior with reference to a program. Thus, as Gordon and Jester note, in this respect we have a verification of Miller's findings (1970) that training a teacher in a particular program tends to lead to more uniform behavior by teachers assigned to or working in specific clear-cut, well-defined programs.

One study by Prescott and Jones (1967) revealed some evidence of effects of "special training" (including workshops, course work, certificates, and a major in child development) upon caregiver behavior. This study was done in 50 day care centers in the Los Angeles area. Training appeared to influence both quality of care and the nature of the caregiver/child interactions. Prescott reported that program quality (defined as children's interest and involvement in activities) increased as special training of directors and teachers, especially teachers, increased. Preschool teachers with little or no training used restriction most often and indirect guidance least often. Furthermore, as the teacher's amount of training increased, her attitudes toward authority became less arbitrary and her attitudes of warmth increased. Siegel et al. (in Grotberg, 1971), noted that the less training child care workers have, the more likely they are to be autocratic. Although the total sample Prescott studied was large (104 caregivers), construction of five subgroups reduced the individual sample sizes to a number which weakens the strength of the conclusions. However, they are still suggestive of the importance of training. Prescott stresses the importance of training which includes information about developmental stages of the children in care, and the importance of sensory tactile stimulation to development.

The Parent-Child Development Center research (Lasater et al., 1976; Johnson et al., 1976; Blumenthal et al., 1976) on the training of predominantly low-income mothers and the resultant impact of this training on their infants and toddlers has been summarized by Mary Robinson (1976). Mothers were the recipients of "inservice" training in techniques to improve children's development. Although the mothers who participated in these projects were carefully selected from a list of those eligible and had varying entry level characteristics (age, income, number of children, education, presence of husband, etc.) they were randomly assigned to experimental and control groups. In general, the investigators could not relate occurrence or amount of change to any initial descriptor of the mothers. For example, "warmth" was a caregiver characteristic that proved subject to change through training but the initial measure of "warmth" did not predict subsequent change in that or any other measure of behavior.

An overall index of economic, social and emotional stress was made through in-depth interviews by social workers of a sample of mothers. The researchers found that stress was allayed through the program by creating a warm supportive environment at the center between staff and the mothers, and strain was reduced by providing mothers with assistance in coping with such daily frustrations as obtaining food stamps. Robinson suggests that such allaying of stress is a necessary condition if mothers are to concentrate on the training program goals and finally to change their parenting behavior. It was also found that mothers who dropped out when their children were 13 months and 18 months of age did not exhibit the changes in behavior (at that time) that mothers who stayed on exhibited. Among the measured behavioral changes for the mothers who received training were more sensitivity to social and emotional developmental needs of their children, increased praise, less use of punishment, less ignoring and rejecting of the children, less emphasis on exacting obedience; and greater use of more complex language and reasoning with children. In general, trained mothers felt less restricted by home-making and children and enjoyed their children more. Besides changing their behavior towards their children, they also pursued their own educational development more, used community agencies more, and helped each other more with daily chores and arrangements such as babysitting and shopping.

Both cognitive and social-emotional benefits to children were also found in the Parent-Child Development Center (PCDC) research. Robinson reports that in both the pre-post and experimental-control group comparisons, target children had greater attentiveness, awareness and responsiveness to new and discrepant experiences in the first year, followed by more exploratory behaviors in their second and third years. They showed greater skills in problem-solving, greater vocalization and more complex language skills, and significantly higher general cognitive development as measured by Bayley at 20 or more months, and by Stanford-Binet at 36 months. These effects noted on the experimental groups were retained or extended at 48 months while they were lost in the control groups. Positive results were also found in the area of social-emotional development, in terms of earlier and stronger attachment to mothers, earlier and stronger explorativeness and greater capacity to relate to strangers in the second and third years. Interactions with mothers, and later with others, were found to be richer in texture, in vocalization, touching, smiling and proximity-seeking, and involved more eye contact and verbalization from distances. More and richer play behaviors and fantasies, shared with mothers and later with other adults, were also found (Robinson, 1976).

The Home Start project (Love et al., 1976) also reported changes in caregiver (mother) behavior as a result of training received from home visitors and during monthly group activities. Findings after seven months of training indicated that Home Start mothers when compared with controls were more likely to allow their children to help with household tasks; they reported teaching more reading and writing skills to their children; they provided more books and common playthings for their children to use; and they read stories to them more often. Such mothers were more likely to employ a teaching style involving thought-provoking questions as assessed in the Eight Block Task situation, to engage in a higher rate of verbal interactions in that situation, and to focus their talk on the dimensions of the task. (Love et al., 1976.)

Positive effects of Home Start were also noted in the children. Gains over control group children were found for Home Start children in school readiness and in socio-emotional development (as measured by a task orientation test as well as by mothers' ratings.) Home Start children were also found to be receiving better medical and dental care (Love et al., 1976).

Some evidence on the effect of home-based or individual training of caregivers comes from the West Virginia Paraprofessional Child Care System study which reported changes of marginal statistical significance in four caregiver behaviors after training (increases in acknowledge and play interactively, decreases in criticize activity, and warns) and significant changes in one behavior (decreases in negative vocalization) out of 15 behaviors observed (Ristau et al., 1976, 1977a). Ratings of caregiver behavior made by observers also do not show significant differences after training, nor does the amount of attention given to children by caregivers appear to change after training. The environmental conditions also do not change significantly.

Impact on children was also measured in the West Virginia project. Thirteen different child behaviors showed no significant effect from caregiver training nor did "involvement" of the children in an activity or with other children improve as a result of caregiver training (Ristau et al., 1976b).

Previously reported information from questionnaires and anecdotal evidence of various project participants does, however, indicate positive attitudes toward the program on the part of many training advisors and day care providers (WVPCCS - Final Report, December, 1976).

The fact that the findings from the West Virginia project were not more positive should not condemn inservice training efforts. Few training programs have included an objective evaluative component which attempts to measure change produced in teacher behavior. Of those that have had such a component, several cited earlier have yielded positive effects on caregiver and child behaviors or test performances. In addition, many factors may be operating to depress results. Recruitment and selection of caregiver may be one.

Factors Which Affect Training

Some individuals may be so poorly motivated to work with children, so totally unsuited to work with children, or just so overwhelmed with their own personal problems that they are untrainable. Alice Honig, a trainer who has worked in many day care facilities around the country certainly feels this is the case. Prior to beginning its training programs, the PCDC project was careful to winnow out those women who were under the stress of overwhelming economic, personal and social pressures which could not be remedied without tremendous effort. This was done to assure better program retention and improved chances for success.

The West Virginia project found that providers who were most interested in training and who were also better quality caregivers tended to remain as providers, while less interested, poorer quality providers tended to drop out. Thus a training project--unless it is very selective in screening and accepting participants--may often contain participants who initially demonstrate limited skills, and continue to do so until they "select" themselves out.

What this implies is that an inservice training program which focuses only on skill training to improve caregiver behavior with children may not be sufficient in scope to produce dramatic changes in behavior. This is probably most true for inservice programs attempting to train the low income woman who seeks a job in day care

--not because of a desire to work with children--but because it is one of the few jobs open to her with her limited skills and education.

Thus, a caregiver must be considered in her entirety. Constructive attention must be given to the caregiver's personal stresses, sense of social isolation, economic privation, and other problems before one can expect her to concentrate her energies on changing her behavior (with the support of training) towards children. It is difficult to specify the characteristics of the programs that "cause" the beneficial impacts on caregiver behavior. A supportive social milieu, along with auxillary services and counseling aimed at relieving caregiver stress, whatever its cause, were factors in some of the more successful programs reviewed. Other common factors appeared to be programs of fairly long duration, perhaps at least a year; opportunity to observe modelling by experienced caregivers of appropriate child care behavior; and an opportunity to be a teacher to others. It is difficult to offer these generalizations with any certainty. Many derive from programs, such as the Parent Child Development Centers, in which the parent is the trainee and a mother's motivation to improve the quality of her care is likely to be more intense than a caregiver's. Not surprisingly, in the various projects, the social context of the training appears to have more impact than the particular curricula used. For example, the opportunity for adults in training to come together as a group at least periodically for training appears to be as important as the content of the training. Appropriate recruitment and selection of providers who would benefit from training would also appear to be very important. The implication here is that if federal dollars are to be used to train caregivers, some thought must be given to whether screening of participants should be done to minimize losses.

Caregiver Willingness to Participate in Inservice Training

As pointed out above, training must be geared to the needs of the participant if it is to be effective. In the case of low income women, special supports to help with personal problems may be needed as part of any inservice support system. In addition, caregiver attitudes are important. If an individual does not perceive a need for training or is uncommitted or undecided about a career in child care, the chances of the training having any impact are minimal. The issue is whether some screening is possible to assure that training money is not expended for individuals who will not benefit. Who are the caregivers who most express interest in training and who will most likely benefit from a quality training effort? Can they be identified?

It is difficult to specify the demographic and other characteristics of caregivers who are most likely to express an interest in participating in training as compared to those who are not. For example, the responses of 1,183 family-based and in-home caregivers surveyed in the West Virginia Project (Ristau et al., 1976) were both spread fairly evenly over four choices concerning their interest in taking part in a pilot training program; the choices were: "yes, definitely interested", "probably interested", "not very interested", and "no, not at all interested". Cross-tabulations generally showed no particular correlations between expressed interest and most variables investigated, including education variables (highest grade completed and graduation from high school versus no graduation), occupation of wage earners in the caregiver's family, and residential area (for example, open country, medium-sized city, etc.)

However, two variables did show substantial relationships: number of welfare-sponsored children in care, and quality of care given by trained caregivers. Specifically, caregivers with two or more welfare-sponsored children in their care were more likely to express a "definite" or "probably" interest in taking part in the program. With just one welfare-sponsored child, caregivers were more likely to say "not very interested" or "no interest". This finding was specific to number of welfare-sponsored children in care; there was no relationship between expressed interested and number of own children or private clients in care. The most likely explanation for this relationship rests on the fact that caregivers were paid an incentive to participate in the training program and that incentive is based on the number of welfare-sponsored children in care. With only one such child, the pay raise is very small, but it becomes more substantial as the number of such children increases.

The relationship between expressed interest and quality of caregiving was examined in an analysis of ratings made by paraprofessional trainers on over 200 caregivers who actually participated in training. In general, providers rated either "best in caseload" or "excellent" were more likely to have expressed "definite" interest before entering training than those rated "worst in caseload" or "unsatisfactory to fair"; specifically, over 68 percent of the "best" and less than 42 percent of the "worst" expressed such "definite" interest.

Wattenburg (1976), who conducted a study in Minnesota, found that family day caregivers who showed enthusiastic and high participation in training were, like the West Virginia caregivers, considered quality day care providers. They also had a full complement of children in care. Quality referred to a caregiver's stability and was defined in terms of longevity of at least a year. In the West Virginia Study, those caregivers with the longest durations of service, i.e. more than two years, also expressed the most interest in training. Members of this group with the longest duration of service constituted almost a fifth of the provider population, had the largest number of children in care and were the oldest providers in the sample. In both studies, those providers who had been operating for the shortest amount of time expressed the least interest in training. Paradoxically, in both the Wattenberg and West Virginia studies there was also a small group of caregivers who were not interested in participating in training but who were also considered successful caregivers. In the Minnesota Study they were described as "traditional" women with high regard for intuitive child rearing skills, typically homebound without a driver's license though often with access to a car they do not use because they lack a license. Even though training was considered irrelevant and intrusive to this group of non-participants, some neighborhood peer group (other caregivers) "support" was seen as acceptable.

In summary, both family day care studies found that the majority of providers most motivated toward training were those who had longevity of over one year, cared for more children than those least interested in care and were rated quality caregivers. (In the West Virginia Study they were rated "best" quality caregivers based on observer ratings and in the Minnesota Study those rated "best" quality were providers who, among other criteria, made most use of a toy resource center.) One explanation of interest in training by those who cared for the "most" children may have been that a financial incentive (based on the number of children in care) was offered in both studies to training participants. Ricciuti has also found that small financial incentives facilitate interest in training. This suggests the need to consider the use of a financial incentive as one method of motivating family day care home mothers to participate in training. In addition, these findings suggest that some effort should be made to assess the attitude of potential participants toward training. It would appear that those who are least motivated tend to drop out.

What Type of Training is Most Effective?

Caregivers themselves express interest in training, though often they have strong feelings about the kind of training they would be willing to receive. In the National Day Care Center Cost Effect Study, 87% of the caregivers (n = 672) expressed a desire for additional training, primarily in child development and family. In the Infant Substudy, 75% of the caregivers working with infants wanted courses in child development and child care. Directors of the infant centers felt their staffs needed more and better inservice training. They complained that the majority of the coursework or workshops available at local community colleges and universities were geared to training the preschool teacher. Such training was not considered at all suitable for caregivers who would be working with children under three years of age. June Sale of the Community Family Day Care Project in Pasadena, California, indicates that family day caregivers are interested in receiving "support" which might include training (Sale, 1977). They do object to "warmed over center training" and to "outsiders" assuming that they are desperately in need of training to care for children in their own homes--which in many cases has been their occupation for several years and at which they believe they are at least moderately successful. As both June Sale and Elizabeth Prescott of the Pasadena project relate, training requested and designed by family caregivers themselves is most likely to be well received.

The relative effectiveness of group versus individual, home-based training is not known. Evidence is available that indicates beneficial results from both group training (PCDC) and the home tutoring mode (Home

Start and others). There seems to be a general feeling that at least group training should be provided, possibly supplemented by individual training. (Sheldon White personal communication, 1977; Helen Rand, Morris County (New Jersey) Child Care and Development Council, 1977).

Sheldon White suggests that, at the minimum, a circulating magazine, or "How To" manuals should be distributed to family day care providers to serve as learning tools. Or perhaps state or county agencies could sponsor regional meetings for providers to support quality care.

In summary, then, training options must be diversified in both content and format and flexible in time in order to meet the preferences and needs of the identified segments within the day care providing population. Data from the Minnesota Study identified at least four clusters of providers within family day care. The West Virginia and Pasadena family day care projects also identified various caregiver groupings. The Minnesota study listed the following provider types:

1) the "traditional" woman with a high reliance and regard for intuitive child caring skills who considers training both irrelevant and intrusive. This woman would accept an inservice format where the peer group (a day care network) within her neighborhood provides "support" rather than "training."

2) the "modernized" woman who will avail herself of all training opportunities as a result of her career development orientation and her desire for professionalism in her role as a day care provider. She will participate extensively in training with particular interest in accredited coursework. Long term commitments and training locations outside of the home are not deterrents.

3) the "transitional" provider who is emerging into a developmental role for herself will be willing to make short term commitments in the beginning to such things as workshops, single purpose meetings and home-based training. The interest in training is cumulative. A sequential pattern of training opportunities can be designed for women in this group.

4) the "novice", notable for a shallow and unstable commitment to the enterprise, will generally find home-based training the appropriate model.

In centers, caregivers indicate a preference for training in child development relevant to the age group with whom they are working, instead of specific training in curriculum and activities. This preference is supported by expert opinion as well. Provence, 1977; Ricciuti 1976, Prescott. Both Ricciuti (1976) and Meyer (1976) emphasize that the goal of training should be to create a "sensitized" caregiver, rather than to teach the caregiver how to provide a specific curriculum to young children. A "sensitized" caregiver would be able to be sensitive to each child's individual needs, abilities, and stages of development and will know how to respond appropriately to the child at each child's own timing. Merely teaching caregivers to provide specific activities for children to do can lead to overemphasis on the activity so that the child is, in effect, forgotten.

It has been demonstrated, then, that training can affect performance. The attendant caveats are that the caregiver must be motivated to work with children and desirous of receiving some training. Further, it remains to be seen whether individuals with relatively little formal education can be trained to care for children in a way that will promote competent development. The NDCS study has found that years of formal education and previous job related experience are not determinants of effective caregiver behavior. Whether or not caregivers have participated in an inservice training program or a formal educational program directly relevant to care and education of young children is a determinant of effective caregiver behavior.

Impact of Experience on Caregiver Competence

Do caregivers with the longest duration of service and therefore the most experience provide better quality care than those with little experience? Few studies have been specifically designed to assess this.

In the National Family Day Care Home probability survey (Westat, 1977) it was found that 43.4% of the caregivers had over four years of experience providing day care. Regulated caregivers had more experience than the unregulated. (56% of the regulated had over four years experience versus 38% of the unregulated.)

A statewide survey in West Virginia of family day care providers (n = 974) who cared for at least one child subsidized by the State welfare department revealed that the providers with the longer durations of care expressed more definite interest in participating in the training program offered than those with shorter durations of service. If willingness to participate in training suggests a more "able" caregiver, then perhaps one can assume that a sizeable number of the regulated providers mentioned above who have been operating for a number of years are likely to be quality caregivers. Two other factors might tend to support this relationship: first, the fact that these caregivers are still in business (parents' continued use of the service suggests they have been satisfied with the care offered) and second, these providers took the time and effort to become regulated.

In a subgroup of the West Virginia study (n = 250), those caregivers in training rated "best" by supervisors had a longer duration of service (median of 23 months) than those rated "worst" (median 17 months)--another indication that time possibly weeds out a high percentage of poor quality caregivers.

The NDCS study is examining experience as a factor which influences caregiver performance. The results from the preliminary analyses of the cost-effects study are inconclusive, in part due to a few extremely atypical centers. Although there were signs that previous day care experience was related to children's test scores and caregiver behavior, it appeared that previous experience had correlates other than length of service in the current center. This suggests that the key element in "experience" may not be simply amount of time in service but rather exposure to training, good supervision or some other factor in the past. When training is factored out it becomes clear that previous job related experience is not a determinant of effective caregiving. Further investigation of this variable is being conducted. More will be known when the technical reports are made available in December 1979.

The NDCS infant substudy also will yield findings regarding caregiver experience (amount of time and/or types of experience). Currently experience, age and education are confounded. This may explain why preliminary analyses in this study found experience to be negatively related to language teaching, extended verbal, all verbal and social interaction and positively related to observing and noninteraction. What may in fact be operating is a positive relationship between education and specific training and cognitive or language stimulation. This relationship is not surprising as it occurs repeatedly in early childhood research.

The Impact of Training on the Director

The previously described Prescott and Jones study (1967) is the only identified study which considers the impact of director qualifications and training on aspects of center-based programs. The National Day Care Center Study which has just been completed, investigated the impact of staff characteristics on child outcomes; the only data available from this study at this time, however, relates to caregiver impact on children, not to the impact of the director or nonclassroom staff. The National Day Care Center Supply Study (Coelen et al., 1977) offers only descriptive information on directors' education and experience in 1,750 centers but none on how this experience impacts on children.

The National Day Care Center Supply Study shows that 79% of the directors have schooling beyond high school. Approximately 53.5% hold a bachelors degree or a graduate degree. Based on an on site validation survey conducted as part of the NDCS, 12.7% of the directors have an elementary education degree, 3.6% a secondary education degree and 10.9% a preschool education degree. They average 8.6 years experience in center care. Directors have more education and experience than the teaching staff. Although the on site validation shows that a great percentage of the teaching staff (including assistant directors) hold a preschool education degree, the question is does this difference in education and experience guarantee a director who can function effectively?

The impact data presented by Prescott and Jones (1967) concern the relationship of director training, not to child outcome variables themselves, but to the following contextual variables: lessons taught, program format, teacher manner, teacher performance, and director attitude and warmth. They found few relationships between director training and program effects, and a negligible relationship between director training and teacher performance. With regard to program, they report that creativity, experimentation, child-centered orientations, and consideration for the rights and feelings of others appeared to increase somewhat with training. In addition, a slight tendency towards increased warmth and sensitivity was indicated.

Although these data suggest that director training does influence some aspects of center programs, they are weak and have not been replicated. Furthermore, director training has not been studied in relationship to its impact upon major administrative responsibilities of directors. Length and type of director experience might be helpful independent variables in assessing administrative skill, but to this date, no data are available.

Some child care experts feel that the only person who should be required to hold a specific college credential in child development or a day care related area is the director or possibly the head teacher in a center. Henry Riccuiti recommends that the director of a center or family day care home network should hold a degree in child development. However, he feels that formal education is not a determinant of caregiver quality, and will not assure warmth, flexibility or any of the other factors necessary for caring for children. Nor will prior experience as a mother assure that someone will be a competent caregiver. Inservice training will sensitize these people. On the other hand, Riccuiti and other experts feel that the people who supervise staff or plan child activities should have an in-depth understanding of child development gained from college training. In addition professional preparation (formal education) may give directors confidence in their dealings with people. (Prescott and Jones, 1967). Training in supervisory skills is also something experts recognize as necessary.

Thus empirical evidence does distinguish between classroom staff and supervisory positions. Little research evidence is available however, that identifies what specific type of training (college as well as inservice) is needed to assure a competent caregiver or supervisor, or head teacher. Expert opinion plus State licensing requirements, support the need for various levels of training for various positions in day care.

State requirements for classroom staff vary greatly according to the individual position. Requirements for head teachers are similar to those for directors: the emphasis is on formal training in child growth and development. Requirements for aides and caregivers vary from a minimum age requirement and ability to read and write to a high school degree. In some instances a high school degree must be accompanied by some academic course work in child development and/or prior day care center experience. The National Day Care Center Supply Study clearly shows that a wide range of education and experience exists among workers in center day care, as one would expect from the variety in States' requirements.

Availability of Non-Classroom Staff

It has been suggested that in addition to their qualifications, the availability and numbers of non-classroom staff may contribute to child outcomes. The number and availability of administrative and support staff varies from program to program in center-based care. In small centers the director, secretary, and teachers may be their own support staff. Larger centers may have a sizeable custodial, cooking, or social services staff because of greater or different needs. In some cases these individuals double as classroom staff, although often this occurs only on paper in order to meet a low child-staff ratio requirement. Generally, available research gives no consideration to the impact that non-classroom staff may have on the quality of center care, or to the contribution it may make to child outcomes. Some descriptive and impact data have been identified for director qualifications. None were found concerning availability of non-classroom staff except the data on volunteers discussed in another section.

The Relationship of Training to Career Ladders in Day Care

The FIDCR states that career progression opportunities be provided for non-professional day care personnel. Although the FIDCR does not define non-professional, it appears that the target group for this provision is low-income individuals whose employment the FIDCR encourages. Questions that should be asked in determining the appropriateness of this provision include: Are tasks performed by various categories of day care personnel sufficiently different to require special expertise and differing wages? Are career-progression opportunities available in day care? And if they are, what chance does an individual who has little or no education, or no education relevant to child care, have to advance up a career ladder in day care? And finally, are non-professionals employed "effectively" as is required by the FIDCR?

Tasks Performed by Professionals and Nonprofessionals

Dr. Winifred Warnat in a study funded by Teacher Corps in the U.S. Office of Education 4/ states that, although erroneous, the commonly perceived and accepted definition of a paraprofessional in child care is a paid teacher's aid with little more than a high school diploma and no previous experience in the area. Dr. Warnat explains however, that the paraprofessional may in fact be paid or unpaid, trained or untrained, a parent, neighborhood resident, youth, retiree, volunteer, day care mother, or center director, and be of low or middle income.

The specific roles and responsibilities of paraprofessionals (or nonprofessionals) in day care are difficult to determine because of the diversity of the functions being performed. Dr. Warnat notes however, that these roles do encompass major areas that are critical for the provision of quality child care, including health, nutrition, education, and social services. Unlike teachers' aides, who function as assistants to classroom teachers

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4/ States' Response to Issues in Early Childhood, Winifred Warnet, 1977.

in a nominal or non-instructional capacity, child care paraprofessionals make up the major group conducting instructional type activities.

Zaccaria et al. (1976), researchers for the Texas Day Care Study, also had difficulty determining what tasks paraprofessionals perform in day care. These researchers administered task inventories to some 684 child care workers in various types of day care centers. In all, data were gathered on 167 different tasks. Unable to distinguish between tasks performed by aides, paraprofessionals, teachers and head teachers, they proceeded to collapse the various tasks (using a factor analytic technique) into nine major job clusters. For example, tasks such as "praising children for their efforts, maintaining discipline, managing hitters," etc., were collapsed into a heading such as "directing children in social-emotional, psychomotor, and muscle development". They still found considerable variation in what different people did, thus pointing to the fact that there was not a clear delineation between professionals and paraprofessionals in day care.

Since it is difficult to differentiate between the tasks performed in the classroom by the paraprofessionals and those performed by professionals it is also difficult to determine what kinds of training paraprofessionals need as opposed to "professionals".

Center Directors and Other Non-Classroom Staff. Zaccharia's Texas Day Care Study was able to identify differences in the tasks performed by non-supervisory staff, such as caregivers, aides, etc., and those performed by supervisory staff such as directors, assistant directors, trainers and head teachers. Directors differed markedly in the number of tasks performed primarily in terms of supervising staff.

Directors and other non-classroom staff also have contact and interact with the children in center based programs. Thus, they too affect the children's environment. Consequently their suitability for working around children must be determined along with their competency in specific skills areas. The qualifications of program directors appear to be particularly relevant here. Not only do they need administrative skills to manage their programs, they also require expertise in interacting with children and teachers since many spend a great deal of time in classrooms, planning, supervising, and modifying programs.

Upward Mobility Versus Classroom Stability

There is a potential conflict between the FIDCR provision for an upwardly mobile progression for nonprofessionals and the need to minimize staff turnover in order to promote continuity of care. This is an important issue that gives rise to confusion over the underlying intent of the FIDCR. Were the requirements intended to foster child growth and development? Or were they designed to provide economic and educational opportunities for staff members who are not highly educated and probably of relatively low income? It would appear that both were intended.

Professionals in the field of child care attest to the importance of professional growth. For example, it is Dr. Warnat's opinion that career development should be available which "provides opportunity for professional growth, as well as an accessible career mobility ladder, which is not compulsory". "Career Development" is also one of the major Head Start components. An elaborate network of training programs has been established to train Head Start staff for the dual purpose of providing more competent caregivers for children and facilitating staff career mobility. Yet evidence is presented later in this paper (Elardo, 1973; Yarrow and Goodwin, 1965; Ricciuti, 1976; Kagan, 1976; Ainsworth, 1969, Bowlby, 1969, etc.) which suggests that caregiver stability appears to be quite important especially to infant and toddler development. The question then urges: will complying with the regulation to provide career progression opportunities have the effect of disrupting the continuity between caregiver and child to the detriment of the child's development? One known study (Booz, Allen and Hamilton, 1973) pertains to this issue. This study examined employee mobility in Head Start programs, where career development is emphasized. An examination of 56 full-year Head Start programs selected from a stratified sample of 70, showed the overall turnover rates for Head Start to be low. The weighted total three-year turnover rate was 13.4 percent per year, while the overall promotion rate (which might result from inservice training), was found to be about half as large (about seven percent). In fact, results from the study did not find inservice training or the career development effort, as it is called, to be associated with either high upward or outward mobility. Turnover was high only in the two components which do not involve constant day-to-day contact with children: social services (15.7 percent) and health (15.6 percent).

One must question, however, whether the findings from Head Start can be compared to expected impacts in day care. It seems reasonably valid to state that both Head Start's inservice training program and its career progression plan are much more extensive than what is offered by most day care programs. Reasoned judgment would suggest, therefore, that the opportunities for career progression would be less in day care than in Head Start. Thus, since mobility in Head Start is very low, it would seem that mobility as a result of inservice training in day care would also be low--in fact, lower.

The National Day Care Center Supply Study indicates that the mean or average turnover of classroom positions annually is 15.4%. (This means a particular position has turned over at least once during the year, although, in fact, it may have turned over several times but have been counted only once.) Center classrooms average nine staff members. Thus a turnover rate of 15.4% means 1 position a year turns over per center. Whether this turnover reflects true job mobility is not known. There is reason to believe it does not. The mean is a misleading figure when describing classroom staff turnover because the distribution is very skewed. Approximately 30% of the centers surveyed show no turnover while others average 10-20% turnover. There is a group of centers which show a high percentage of turnover in positions, but this does not necessarily indicate an ideal situation for career ladder progression because high turnover may suggest staff dissatisfaction with jobs and pay. This is hardly a situation suited to career development.

One should be aware of the intricate determinants of upward mobility (within a program) and outward mobility (outside a program), both of which could have the same effect of disrupting child/caregiver continuity, although this need not be the case. A day care program, for instance, may offer inservice training and may have a career progression plan designed, but may have no staff attrition and therefore no new job openings. In such a case the lack of potential for career mobility within day care might be expected to lead to increased outward mobility. However, the availability of jobs outside of day care with salaries commensurate to or better than those within the day care system is obviously an extremely important determinant of outward mobility.

Thus, because of the complexities of the matter, and because the extent of inservice training and career progression plans in day care is not known, it is only possible to speculate on the specific effects of the FIDCR provisions regarding these issues, or on what those effects are likely to be if they are increasingly enforced. Little is known regarding the interaction between the supply and demand of child care workers and factors not subject to regulation under the FIDCR. Yet it seems that some general effects can be projected on the basis of available information and knowledge of child care practice.

Common sense tells us that even if inservice training and career progression provisions are stringently enforced, the rate of promotion (and resultant disruption of caregiver/child continuity) would still be extremely low. Promotions are not usually awarded for attendance at just a few workshops, but rather when a child care worker acquires a formal child care credential or a degree--a lengthy undertaking when a student is working. Even then, the promotion is contingent upon a job opening at the appropriate level. If the demand for child care workers should suddenly change, obviously many more openings would arise initially. However, the career progression provisions would still be operative and it could be expected that the rate of promotion would soon stabilize at an acceptable level within a program. Finally, it should be noted that in most center-based programs there is an automatic annual disruption of the caregiver/child relationship as the children age and are placed in new groups of children their own age. There is no evidence on what the effects of this disruption is on the children involved.

To summarize, then, the determinants of staff mobility in day care are extremely complex and dependent upon economic issues of supply and demand which cannot be regulated by the FIDCR. From the evidence available and a general knowledge of day care practice, however, it does not appear that harm to children will occur as a result of any discontinuities in the caregiver/child relationship due to the inservice training and career progression provisions of FIDCR.

Nonetheless, the limited potential for career mobility within day care still calls into question the appropriateness of a career progression requirement, and the question of whether the FIDCR should be solely concerned with providing quality care for children or should also be concerned with promoting job opportunities for adults--in particular low income women. As discussed earlier, inservice training may have to be more intensive and broader in scope (to provide personal support), than the programs offered in most day care now if it is to be effective for some low income people. This training will probably be costly. Should day care dollars be used for this purpose rather than for purchasing a day care slot for a child? The goal of the FIDCR is to promote the well-being of children in care. It is questionable whether a second goal--especially one as major as a jobs program--could or should be supported as well.

FINDINGS

- Expert opinion and empirical evidence agree training in child development related areas is generally necessary to insure the competent and sensitive caregiving behavior associated with positive cognitive and emotional development in children. There is no consensus, however, about what types of training (e.g., formal preservice academic training, inservice training in the form of workshops, on site demonstrations of work with specific age groups, frequent director supervision, etc.) will promote specific competencies most effectively or about how extensive the training should be (Mathematica, 1977; Prescott and Jones, 1967; Provence, 1977; Lasater et al., 1976; Johnson et al., 1976; Blumenthal et al., 1976; and Family Learning Centers, 1976, 1977a, b).

- Evidence from several research studies indicates that teacher behavior and attitude can be changed as a result of inservice training. It is not known whether such changes are permanent or temporary (i.e., if they are dependent on continuous training, continuous supervision by directors or supervisors, or peer support) (Mathematica, 1977; Gordon and Jester, 1973).

- The majority of caregivers (especially infant caregivers) interviewed during the National Day Care Study, and several large-scale family day care studies, expressed an interest in receiving inservice training that focuses on child development rather than curriculum only.

- Childcare experts agree that inservice training in child development needs to be specifically related to the age of the children in care. (Prescott and Jones, 1967; Hunt as cited in Mathematica, 1977, Provence, 1977.)

- Expert opinion and empirical evidence indicate that training can and should develop a "sensitized" caregiver--one who is sensitive to each child's individual needs, abilities, and stages of development, and who will know how to respond appropriately and in a timely fashion to the child --rather than teach a caregiver to work in a rote fashion with a specific curriculum (Ricciuti, 1976; Meyer, 1976; and Hunt cited in Mathematica, 1977).

- Expert opinion and empirical evidence indicate that not all persons can be trained to be competent caregivers.

- Research shows that parents place a high value on the qualifications (including experience and training) of their child's caregiver and consider them an important element in selecting childcare services (Unco, National Childcare Consumer Study, 1975; Abt, NDCS Cost-Effects Study, 1977).

The importance of training is supported by the preliminary findings of the NDCS Cost-Effects Study and Infant Day Care Study. In both of these studies a major variable was caregiver qualifications, which included: (1) years of education; (2) previous day care experience; and (3) caregiver specialization in child related areas. An experimental design was developed which examined these caregiver characteristics. The NDCS findings regarding caregiver qualifications and their impact on preschoolers and infants/toddlers are presented below. 5/

Preschoolers

Thus far, the NDCS has examined the correlates of three components of caregiver qualifications:

- Formal education (number of years of education) by itself, independent of child-related education content, was not associated either with more positive caregiver or child behavior, or with improved test scores for children. However, formal education was related to day care cost because years of education was associated with caregiver wage rates.

5/ Further discussion of these preliminary findings can be found in the appendix of this report.

- Previous day care experience showed some signs of being related to more social interaction between caregivers and children and to higher child test scores, but a consistent pattern was not observed and firm conclusions cannot yet be drawn as to the importance of this factor. Experience is related to cost to the extent that it impacts on caregiver wages. Caregivers with more tenure in a center earned higher wages than those with less tenure.

- Caregiver specialization in subject areas pertinent to childcare of preschool children was related both to positive classroom caregiver behavior (i.e., more social interaction with children, less interaction with adults, and less management-oriented interaction with children, e.g., commanding, correcting) and child achievement (as measured by the Preschool Inventory and the revised Peabody Picture Vocabulary Test). Current analyses do not make clear whether specialized training is effective only in the context of a formal educational program, or whether practical, child-related components of such a program can be extracted and used as the basis for training of caregivers outside the context of formal education (inservice training). Further analyses will be required before certainty on this issue can be established.

Infants/Toddlers

- Infant and toddler caregivers have less formal education than preschool caregivers in the same centers. Few State regulations require child age-specific staff qualifications.

- Greater education and more specialized training in early childhood education were associated with higher frequencies of social interactions and lower frequencies of observing and administrative activities. Caregiver education and training also were related to more teaching of language and verbal concepts and more extended conversations with children.

- In toddler groups, caregivers with more education and specialized training exhibited more positive affective behavior (e.g., praising, responding, and comforting) and more effective teaching. In infant groups, more education and training were associated with less severe distress exhibited by infants.

- Neither previous experience nor tenure in current job was associated with differences in caregiver behavior.

IMPLICATIONS FOR REGULATION

Preservice Training: Entry Level Qualifications

The present FIDCR are not specific as to the amount and type of education and/or experience required for a childcare staff position. Moreover, the current qualifications are no longer mandatory because they are contained in the Educational Services component, which is now advisory. It should be considered whether entry level qualifications should be stated for at least the supervisory positions: center director, family day care home network director, and lead teacher for center facility. Thirty-two States currently require at least 2 years of formal academic training with a specialization in child development. This may suggest a possible starting point during the revision process. Most day care experts support formal training requirements for these positions. It also should be considered whether qualifications for center directors and family day care home network directors should include some management and financial training. In addition, current requirements (State licensing standards and FIDCR) do not indicate whether it is necessary that child development education or training be relevant to the age group to be served. Evidence suggests that, to be effective, training should be appropriate to the age of the child in care.

There is no evidence that formal preservice academic training is essential for nonsupervisory staff in order to promote the well-being of children. Such a requirement could, in fact, be detrimental to those caregivers who want to work with children in day care but who have limited formal educations.

Inservice Training

What appears to be needed and wanted by all concerned (caregivers, child care experts, licensing personnel, etc.) is inservice training for all caregivers--especially those without any prior education or experience with children--that focuses on the developmental needs of the children in care.

Given the present state of knowledge regarding inservice training, it is not possible to prescribe an optimal type of inservice training program nor the extensiveness of such a program. It is possible, however, to identify what the content of such training should be. The focus should be on child development, and training should be relevant to the ages of the children to be served and should include some work in the areas of nutrition, health practices, safety and sanitary practices, parent communications, arrangement of space and use of materials in day care settings, and skills training for work with children who have special needs (e.g., handicapped children). These areas all have been identified as areas where most caregivers in family day care as well as center care need support.

It is also clear that such training should be sufficiently flexible so that it is responsive to caregiver needs; it should not be merely a restatement of preschool teacher training programs.

Evaluations of family day care training efforts indicate that training must be diversified in content and format, and flexible in time, in order to meet the preferences and needs of various groups of providers within this caregiver population. There is evidence that family home caregivers who already provide good quality care are more interested in participating in training than caregivers who provide poorer quality care. Voluntary training programs attract, for the most part, well-motivated caregivers. Mandatory training appears to cause ineffective caregivers to select themselves out. Thus, training itself appears to be a screening mechanism.

There is virtually no information on the type of caregiver or training being employed in in-home day care. Many day care observers suggest that inservice training should be made available to in-home caregivers who desire it.

Effective implementation of the inservice training component may require finding out why administrators have encountered problems which have resulted in such limited inservice training efforts to date. One known problem is that some government administrators have misinterpreted Title XX, believing that those funds cannot be used to train caregivers. In instances where administrators are aware that Title XX funds can be used for inservice training, many are reluctant to do so because they cannot find matching funding and are not aware how this can be done without using actual dollars. In these instances the States have not worked out the mechanics of an in-kind match. It appears that much technical assistance may be needed to develop an effective inservice training component for day care.

Recognition of Competent Caregivers

Many professionals in the field believe that competent caregivers should be formally recognized, regardless of whether the skills they possess were attained through formal education, formal or informal training, or job experience. The Administration for Children, Youth, and Families has initiated the Child Development Associate (CDA) project to give such recognition. The CDA Consortium awards the CDA credential to caregivers who work in center-based programs with children 3 to 5 years old and who meet the requirements of its Credential Award System. 6/

The Consortium's approach emphasizes demonstrated competence, rather than hours of formal education, years of experience, etc. It provides each candidate an individualized, self-paced, performance-based assessment conducted by a team called the Local Assessment Team. As of May 1978, the CDA Consortium had awarded 3,124

6/ The CDA Consortium is a private nonprofit corporation composed of national professional organizations. An evaluation of the Credential Award System has been conducted by the CDA Consortium (Kovaks and Gleason, 1976). The CDA Consortium is considering expanding its credentialing to other groups of caregivers.

CDA credentials. More than 20,000 caregivers from all segments of the day care community have expressed interest in the credential by enrolling in the Credential Award System.

Evaluations of the CDA Consortium's Credential Award System have been limited. To date, there is not sufficient evidence to prove that, by itself, it can guarantee caregiver competence. Additional research on the Credential Award System is needed.

Consideration should be given during the FIDCR revision process to this approach to recognizing caregiver qualifications.

Employment of Welfare Recipients

The FIDCR require that:

> ...The methods of recruitment and selection (of day care personnel) must provide for the effective use of nonprofessional positions and for priority in employment to welfare recipients and other low-income people filling those positions. (Emphasis added.)

This requirement may not be consistent with the FIDCR professionalism requirement that states:

> The persons providing direct care for children in the facility must have had training or demonstrated ability in working with children.

It is not clear what is meant by "demonstrated ability." It cannot be assumed that simply because someone is a parent, that person is a competent caregiver. If it is meant that priority in employment should be given to those welfare recipients who meet the criteria for staff employment, this should be clarified.

III. EDUCATIONAL SERVICES

PROVISIONS OF THE FIDCR

In 1975, when Title XX of the Social Security Act was passed, the Educational Services provisions of the FIDCR were waived and became "recommended" rather than required.

The FIDCR "recommend" that:

- Educational opportunities must be provided every child.
- These opportunities should be appropriate to the child's age.
- Educational activities must be under the supervision and direction of a staff member trained or experienced in child growth and development.
- Each facility must have toys, games, books, etc., appropriate to the type of facility and age level of the children.
- The facility's daily activities must be designed to promote positive self-concept, motivation, and social, cognitive, and communication skills for each child.

DEFINITION OF THE ISSUE

In the sixties a great deal of attention was focused on preschool children. Earlier, Hebb's (1949) research had pointed to the beneficial effects of early stimulation both in animals and humans. Hunt (1961) elaborated on this further. But in 1964 Bloom went the farthest, concluding that "about 50 percent of intellectual development takes place between conception and age 4." It was this thinking that promoted a rash of early childhood intervention programs one of which was Head Start. Project Head Start was launched in 1965 without research, or the development of a technology of early education, in fact, with little more than the sense of an urgent need to undo the effects of severe deprivation suffered by children in low income families. The program was put in place without a detailed knowledge of the important dimensions of the environment of poor families, and sweeping generalizations were made about the children and parents as a group.

It was in this mileu that the 1968 FIDCR were developed; and the Education Services requirement was an outgrowth of the efforts of Head Start. Despite the vagueness of this section of the FIDCR the apparent intent reflects an emphasis upon the age-appropriate, cognitive, social-emotional and physical development of children receiving federally subsidized care.

The fact that the research in the 60's focused on cognitive development, and that the education services component of the FIDCR came to be seen as an activity unit focused on skill development and specifically on cognitive skills, combined to make this Federal Interagency Day Care Requirement appear expendable when the early Head Start assessments showed that cognitive remedial efforts were only minimally successful at best. (Later studies are much more positive.) Viewing Educational Services as a remedial component, rather than as a support component intended to ensure that everyday interactions between children, their caregivers and the day care environment be as developmentally valuable as possible, was bound to doom it in light of these early research findings. The Congress, at that time, was determined to keep costs down, and the Education Services section was blue penciled as unnecessary.

It is ironic that this happened in view of the fact that Head Start's original concern regarding child development was to stress the relationship between cognitive development and social, emotional and physical development. Experiences in each domain were considered necessary and all were to be an integral part of the daily program of activities. The intent of the FIDCR was much the same but the perception of educational services later became distorted and only the cognitive dimension of development was stressed.

All children need continuous nurturing--social, emotional, cognitive and physical. Good parenting and good home environments provide it almost automatically. The issue, then, is whether a nurturing environment is present in day care settings in a spontaneous fashion, much as it is in home settings, or must it be provided through the specification of a developmental component. The author of this paper argues the latter.

Ambiguity of the FIDCR Provisions

A number of key terms in this section of the FIDCR are vague and unspecified. "Education," for example, means many things to many people, including, as noted by Morgan (1976), anything from adult controlled pedagogy to child controlled play. The key phrases using this word in the Educational Services provisions are "Educational opportunities must be provided every child...," "Educational activities for each child ... must influence a positive concept of self and motivation and ... enhance his social, cognitive and communication skills" (emphasis added). The words "opportunities" and "activities" are also not defined. One would assume that they refer to the typical goings on in a child care program such as listening to stories, coloring, and playing with toys and games. The validity of this assumption is supported by subsection #4, that the facility have "toys, games, equipment and material, books, etc., for educational development and creative expression...." Yet just how much of these kinds of materials are to be provided, and how they are to be used, is left to the imagination of the day care operator or evaluator.

The question of whether the Educational Services component as written was directed toward day care centers alone rather than all types of day care, also arises as a result of ambiguous, or apparently contradictory wording. Subsection #1 specifically includes family day care homes and group care homes in the requirement for educational opportunities. Subsection #2 however, states that educational activities be under the supervision and direction of a "staff member trained or experienced in child growth and development." In fact, only a small percentage of family day care homes are operated by providers with specific training in child growth and development or experience in this area outside of caring for their own children.

Thus, confusion exists over whether all the elements of the Educational Services requirements are applicable to all types of day care.

Since this is the only component among all the FIDCR which alludes to the characteristics or qualifications of the personnel working with the children, making this component non-mandatory could effect not only the education activities within centers (and possibly within day care homes which are part of supportive network) but could also eliminate the only personnel who are supposed to have some knowledge of child growth and development. The effect on regulated autonomous family day care homes would be slight.

EVIDENCE REGARDING THE APPROPRIATENESS OF A DEVELOPMENTAL REQUIREMENT

Development of competence in the earliest years of life is directly related to the amount and nature of children's interactions with key adults in their lives (Ainsworth, SRCD meeting, 1975; Yarrow et al., 1971; Carew, 1976; Ainsworth and Bell, 1974; Clarke-Stewart, 1977; White, 1975). Social and cognitive competence of older children is also strongly influenced by the quality of their relationship with their caregivers as found in Head Start (Miller and Dyer, 1975) and in Follow-Through first and third grade programs (Stallings, 1975). Moreover, research has shown that the amount of parental care in the sense of active intervention is positively related to child development (Zajona, 1976; Clarke-Stewart, 1977).

When components of intellectual competence are analyzed separately, a child's early skill with objects seems most closely related to the caregiver's provision of play with a variety of play materials. Only after the age of 2-1/2 or so are children's self-initiated interactions with the physical environment related to their intellectual competence (Carew, 1975; Yarrow, 1972). Children's exploration of the environment, lack of anxiety in new places, and willingness to play with novel objects are facilitated by an interesting environment and by the presence of a nonrestrictive mother with whom they have interacted frequently (Ainsworth, 1969; Gordon et al., 1969; Honzik, 1957, 1967; Kessen et al., 1975; Ramey et al., 1971; Rheingold and Samuels, 1969; Scarr-Salapatek, 1975; Schaefer and Aronson, 1972; Tulkin, 1970; Yarrow, 1975).

At present, approximately 2.3 million children five years old and under are in family day care homes and center care situations for over 30 hours a week. Over 1.2 million are under three years old (Unco, National Childcare Consumer Study, 1975). These children spend a considerable portion of their day away from the parent who would have provided the interaction necessary for satisfactory development. Many of these children return home to parents (often only one parent 1/) who are exhausted from a day's work and who may be stressed by conditions related to their economically disadvantaged status. It is questionable that even the most well meaning of these parents can provide the quantity and quality of interaction needed each evening to make up for their absence during the day.

The qualities of adult care that seem to be important are: stimulation (from things and people), appropriateness (level and schedule adapted to the individual child), variety (in language, people, toys), acceptance (reasonable limits, firmly but gently enforced), responsiveness (prompt, consistent, elaborative responses to the child behaviors), and affection (expressed verbally, facially, and physically). As children get older, it seems that adult behavior should increase in level of complexity and scope of responsiveness, and see a modification in interactive and affective distance. Also the amount of freedom, privacy, and independence the adult allows the children to explore their own interests should be increased. 2/

Thus, if one goal of day care is to support the well-being of children, a developmental services component may help provide the nurturing that children would have received at home. Children who spend a good portion of their waking hours in a care facility require interaction that supports the development of certain skills, cognitive structures, and emotional attachments necessary for healthy

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1/ Approximately four of five Title XX day care households are headed by a single parent.

2/ This summary of important adult behaviors appeared in Clarke-Stewart's book entitled Child Care in the Family (1977). It results from her synthesis of the research related to child development.

development over time. The relationship between early care and later behavior suggests that if the early environment does not allow for this, it may lead to later difficulties that cannot always be easily resolved. "Moreover, the cost (in time and dollars) of later intervention, whether or not it is effective, is likely to exceed the cost of early preventive measures because of the stabilization of the environment and parent-child interaction that occurs over time" (Clarke-Stewart, 1977).

What Is Known About Effectiveness?

The appropriateness of the present Educational Services component can be measured by comparing it with the elements of successful developmental programs. Both research evidence and expert opinion clearly indicate that a developmental component should be an overall mechanism which attempts to support the cognitive, social and emotional development of the child through daily interaction with caregivers and the caregiving environment. Empirical evidence and expert opinion suggest that three elements are critical to accomplish this: (1) a set of clearly specified program objectives and developmental goals for the children with planned as well as spontaneous activities sequenced to meet them; (2) a variety of age-appropriate materials; and (3) competent caregivers (Provence, 1977; Ricciuti, 1976; Yarrow, 1972).

Developmental Goals and Program Objectives

For preschool children (aged 3-6) the current state-of-the-art indicates that there is no magic curriculum or single best educational approach that works equally well for all children in all locations. However, Head Start, Follow-Through and other early intervention program evaluations found that programs having clearly defined objectives, and activities deliberately sequenced to meet them, were more successful than diffuse programs in producing expected cognitive and social-emotional outcomes.

For the younger child, research shows that up to approximately the age of two and a half years the adult as mediator is the one who "structures" the learning environment for the child. After two and a half years the child self initiates interaction with his environment which promotes learning (Carew, 1976; Clarke-Stewart, 1977). How should the adult "structure" the child's learning experience? Clearly defined program goals will support the type of adult caregiving most likely to foster competence. Ricciuti (1976) states:

> "In our view, the infant day care 'curriculum' is best conceptualized as a set of well-understood guiding principles of quality care which the caregiver employs naturally in her everyday interactions with the infants in her care. Within this context, the caregiver may also utilize her full knowledge of various play activities or experiences which she can provide at appropriate points in her natural interactions with particular infants.
>
> It is our belief that the approach just described is preferable to one in which a formal 'curriculum' of prescribed learning activities or exercises must be offered for a given number of minutes a day to each infant. The latter strategy is susceptible to an undesirable degree of formalization which from the point of view of the caregiver, tends to emphasize the need to complete certain lists of activities, rather than the need to incorporate learning experiences into natural situations when they are most likely to be meaningful for the infant." 3/

Provence, in her book, The Challenge of Daycare (1977), lists nine fundamental basic requirements for high quality infant, toddler, and preschool day care. Three of these are:

- selection and development of a staff that can carry out the goals of the program, with competent consultation as needed.
- a program of child care and education based upon the developmental characteristics and needs of children.

3/ Concept Paper: Effects of Infant Day Care Experience on Behavior and Development: Research and Implications for Social Policy, Ricciuti, 1976, p. 50.

- a systematic method, whether formal or informal, of assessing each child's functioning, i.e., his developmental progress.

McVicker Hunt suggests that the Administration for Youth and Family Services in HEW establish experimental day care programs which would be carefully evaluated for evidences of harm and of fostering positive development in cognitive and linguistic domains. In his critique of a concept paper done for the FIDCR Appropriateness Study, he stated, "I would suggest that the principle of planned variations employed with the Follow-Through Program be adapted for this experimental program. Those prescriptive arrangements resulting in no evidence of harm and in evidence of fostering achievement of those skills--cognitive, social and motivational--essential to our technological culture would be deployed more widely as they could reproduce themselves."

Parent and Provider Attitudes Regarding a Developmental Component. Empirical research findings and expert opinion clearly support the need for a developmental services component which has defined goals that provide a framework for caregiver activities which support and promote cognitive, social, emotional and physical development of the individual child. Again, it must be stressed that this does not imply a rigid, structured, academically oriented program. Programs should vary in content and structure--especially those dealing with young children. And, although they might not necessarily appear to be following any particular format they should, in fact, contain goals which would direct the interactions of the caregivers with the children and their parents.

What are the attitudes of parents and day care providers regarding a developmental services component? The Unco study found that parents were highly concerned about the warmth and reliability of the caregiver. They also wanted personalized attention for their children. These two factors certainly suggest a desire for support of their children's emotional development. In addition there is a clear desire for a component which supports cognitive development. In response to a question regarding special services, 93 percent of Unco child care user respondents indicated that "planned education activities" should be available, and 61.8 percent said they would be willing to pay extra for them. The responses of subsidized users to these questions were in substantial agreement with those of nonsubsidized users, although a somewhat smaller percentage of subsidized users expressed a willingness to pay extra for these services.

Users of center day care were found to be more interested in educational services than users of other modes of child care, usually ranking it among the top four or five preferred or important characteristics of day care. Nearly three-quarters of the parents responding to the NDCS Phase II parent interviews indicated that the superiority of educational programs and services in day care centers was one of their reasons for preferring center care to other child care arrangements.

Day care personnel interviewed in the National Day Care Center Cost-Effect (NDCS) Study indicated that they are concerned with preparing children for school. (These caregivers were working with three and four year old children in centers.) As with the experts cited above, these caregivers defined school readiness broadly, including preparation for the social environment of the school as well as enhancement of academic skills.

In addition, when NDCS caregivers (and those in the infant sub-study), were questioned they expressed a desire for more training especially in the area of child development; indicating that they view their jobs as oriented to supporting child growth.

Of the 64 centers included in the NDCS study, 52 had programs that emphasized stimulation of cognitive skills, but only 2 stressed cognitive skills exclusively. The remaining 50 programs stressed cognitive skills in conjunction with one or more approaches to social development. Twelve did not include cognitive skills among their areas of major emphasis. Because cognitive and social emphasis are both seen as part of preparation for school, the study concluded that it is difficult to separate the educational component of day care from center activities in general. Again, this supports the need for policy makers to broaden their thinking about educational services. A child's learning process is continuous and goes on in many dimensions at once--cognitive, social-emotional and physical--all of which overlap and interact (Ricciuti and Caldwell, 1966; McVicker Hunt, critique of FIDCR concept paper, 1977; Hunt cited in Walsh and Greenough, Environments as Therapy for

Brain Dysfunction, 1976). A developmental services component must support this process and, as Ricciuti argues, cannot be limited to one time segment in the day.

Most industrialized countries in Europe have already taken a clear and consistent position in support of preschool programs for all children from the age of three to compulsory school entry. Among the many goals supported by these programs there is an emphasis on school readiness (Kamerman, 1976).

During this fiscal year Head Start will begin a series of demonstration programs which will concentrate on the development and learning of age-appropriate "basic educational skills". The programs will vary in format but will focus on developmental areas such as language comprehension and learning skills, knowledge of quantitative concepts such as equivalence, development of learning attitudes such as focused attention, and task orientedness and curiosity.

The attitudes of parents and day care professionals, and child care policy in Europe as well as in our own country, support a developmental component for the young child in care.

Benefits Produced by Defined Goals and Program Objectives. There is clear evidence that experts, as well as parents whose children are receiving day care, believe that explicitly defined activities and objectives for these children are necessary in each day care facility to support the everyday interactions of caregivers with the children in their care.

Further, developmental goals for children should focus on the child's cognitive, social, emotional and physical development. The goals, objectives, and activities should be age specific, since the activities that are potentially beneficial to an infant will not necessarily be similarly beneficial to a toddler. However, the particular content of the programs can vary considerably depending on the developmental philosophy adopted. There are numerous and diverse schools of educational and psychological thought. The evidence does not show that any one developmental philosophy, curriculum or program is superior. It has been demonstrated, however, that under certain circumstances any of these approaches can be effective if they are well implemented with clearly defined objectives and activities sequenced to meet these objectives. It is up to the day care facility, administrative agency, and/or parents to select or define a particular set of developmental goals and program objectives.

In addition, clearly stated goals help focus attention on each child's developmental needs, facilitate identification of those children most in danger of impaired growth, and permit formal or informal assessment of each child's development. With that information, caregivers can work with each child in a manner which will support the child's growth toward the goals.

The Effectiveness of a Developmental Component Given High Risk Children. Research shows that low-income children who attend high quality preschools and high quality infant programs have significantly higher IQ's than low-income children who do not. These initial IQ gains, however, are seen to decrease before the child enters school if intervention is not continuous. Despite this progressive decrease, it is important to note that significant differences in IQ between those children who received some form of early intervention and those who did not have been shown to last many years after termination of the intervention. Recent analysis of WISC scores from a number of early childhood intervention studies indicates that differences continue to be found between control and experimental groups up to 12.8 years of age (Lazar, 1977; Heber, 1977).

The decrease in performance noted in the experimental groups results, in part, from the absence of a continued intervention program--these children passed from the intervention experiment to the public schools in their low-income neighborhoods where no special programs were offered. Another external factor which affects the success of any developmental effort -- both during and after -- is the home environment. The home environment and parent caregiving will either reinforce the goals and outcomes of a developmental component in which the child is involved or will limit the effectiveness of such an effort. Many critics, as well as observers of childhood intervention efforts, argue, as Bronfenbrenner does, that no short term "intervention" (such as day care with the aforementioned developmental component) will succeed unless there is a major transformation of the environment for the child and the persons principally responsible for his care.

> "The extent to which such a reciprocal system can be developed and maintained depends on the degree to which other encompassing and accompanying social structures provide the place, time, example, and reinforcement to the system and its participants (Bronfenbrenner, 1972a, p.10).
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> The need for ecological intervention arises when the foregoing prerequisites are not met by the environment in which the child and his family live. This is precisely the situation which obtains for many, if not most, disadvantaged families. The conditions of life are such that the family cannot perform its childrearing functions even though it may wish to do so. Under these circumstances no direct form of intervention aimed at enhancing the child's development or his parents' childrearing skills is likely to have much impact. Conversely, once the environmental prerequisites are met, the direct forms of intervention may no longer seem as necessary. After all, middle class families, who are well fed, well housed, well cared for medically and well educated, do not need special intervention programs either for parents or for children to insure that the latter can learn in school. These families seek such programs, however, in order to enable the child to realize his full potential, and are probably well advised to do so." 4/

Bronfenbrenner cites both the Heber and Skeels experiments as demonstrating that a major transformation of the environment for the child and the persons principally responsible for his care is needed to enable the parent(s) and family as a whole to exercise the functions necessary for child development.

The Consortium on Developmental Continuity (a long term follow-up of fourteen infant and preschool experiments chaired by Irving Lazar at Cornell) examined the effectiveness of intervention projects in improving school performance. Their findings showed that in

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4/ Bronfenbrenner, Urie, Report on Longitudinal Evaluations of Preschool Programs, Volume II, Is Early Intervention Effective, DHEW Pub. No. (OHD) 76-30025, p. 48.

addition to a deliberate cognitive curricula, the most effective programs had the following characteristics:

- low child to staff ratio;
- goals to improve parental behavior;
- high parental involvement;
- visits by program staff to child's home;
- working with children at an early age.

Combinations of these five characteristics produced particularly large reductions in special education placement. Although analysis did not indicate which characteristic produced the largest reduction, two particularly strong ones were adult/child ratio and goals to improve parental behavior. These intervention projects did not attempt to drastically change the home environment and some did not work with the parents at all yet they were effective. Granted, all the children involved were not necessarily from the most severely deprived home settings. However, this does suggest that intervention makes a difference even when the home setting itself cannot be greatly changed.

Heber's project included plans for working with the parents in the experimental group. His emphasis was education, vocational rehabilitation and home and child care training of the mother. It is not possible for this report to judge the quality or extensiveness of this effort, however, the data available shows that Heber had only limited success with these parents. Despite this, the children continue to demonstrate positive growth. Many professionals who have been associated with early childhood intervention studies speculate that the simple act of involving a child in a special program often affects the parent's attitude toward that child, i.e., "my child is obviously special," and this by itself results in a subtle shift of parenting behaviors.

No survey has been done to determine the percentage of Title XX children whose development will follow the typically observed pattern among low-income children of cognitive decline in terms of IQ and school readiness and achievement unless adequate support is available to stimulate positive growth. However, the Heber study carried out at the University of Wisconsin, with grant money from HEW, gives us a sense of the potential magnitude of the problem of children at risk among the low-income population. 5/

Heber conducted a series of surveys in a residential section of Milwaukee which was characterized by census data as having the lowest median family income, the greatest population density per living unit and the greatest incidence of dilapidated housing in the city: a typical urban slum, also yielding the greatest number of school children identified as mentally retarded. All families residing in this section who had at least one child over the age of six were surveyed. A longitudinal study of 40 families followed these surveys.

The major survey finding of relevance to this discussion is that the variable of maternal intelligence proved by far to be the best single predictor of the level and character of intellectual development in the offspring. Mothers with IQs of less than 80, 6/ although comprising less than one half the total group of mothers, accounted for almost four-fifths of the children with IQs below 80.

It has been generally acknowledged that "slum-dwelling" children score lower on intelligence tests as they grow older. However, as found in this study, the mean measured intelligence of offspring of mothers with IQs above 80 is relatively constant. And it is only the children of mothers with IQs below 80 who show a progressive decline in mean intelligence as age increases.

Further, the survey data showed that the lower the maternal IQ, the greater the probability of offspring scoring low on intelligence tests. For example, the mother with an IQ below 67 had a roughly fourteen-fold increase in the probability of having a child test below

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5/ The term "at risk" encompasses those children who exhibit developmental problems or who, because of environmental circumstances, will potentially develop problems that interfere with their ability to function competently --cognitively, socially, and emotionally--as they grow older.
6/ These IQ scores are based on the old forms of the WISC and PPVT.

IQ 67 as compared with the mother whose IQ fell at or above 100.

In addition, the survey showed there was a rather striking congruence of maternal and paternal IQ. Of mothers below IQ 70, 61% had husbands who also scored below 70, and only 14% had husbands who scored above 100. By contrast, not a single mother scoring above IQ 100 had a husband who scored below IQ 80.

These surveys convinced Heber and his study team that the very high prevalence of mental retardation associated with the "slums" of American cities is not randomly distributed but, rather, is strikingly concentrated with individual families. One means of identification is maternal intelligence. In other words, the source of the excess prevalence of mental retardation appeared to be the retarded parent residing in the "slum" environment, rather than the "slum" itself in any general sense.

These population survey data have been taken by some as support for the genetic determinants of "cultural-familial" mental retardation. However, the simple casual observation suggested that the mentally retarded mother residing in the "slum" creates a social environment for her offspring which is distinctly different from that created by her next-door neighbor of normal intelligence. The mother is the mediator between the child and the outside world. A mother who is not able to function well herself cannot provide the supports needed for positive child development. Nutrition and health care are usually poor in these homes. Literacy is low if it exists at all. There is little knowledge of available social services and therefore few attempts to utilize appropriate services. It is the children from these homes who need more specialized attention than is available in a "typical" day care facility. Heber's experiments, as well as other intervention experiments, show that if it is not provided the child will not thrive and will show the steady cognitive decline typical of low-income children.

The surveys convinced Heber that the typical decline observed in the IQ scores of these low-income children came mostly from the way their mothers raised them, so he set out to intervene in that process. Picking forty newborns whose mothers had IQs under 75, he gave twenty of them intensive training in a specially designed day-care center from the age of three months until they were six years old. The other twenty children were simply tested using the same schedule as the experimental children. The center was unique in providing not only individual attention, but also much emphasis on language development and problem solving, as well as special teachers for reading and math from the age of two.

By three or four years of age, the children in the two groups were strikingly different. Those who attended Heber's day care center scored more than thirty points higher on IQ tests. Some tested as high as 135, putting them close to the "gifted" range. And the gains seem relatively permanent. All the children are now in the fourth or fifth grades of a poor inner-city school. Yet even now, five years after the end of their special training, the children who went to the day care center are bright, lively, and verbal, with IQs well above 100, while the others appear increasingly retarded. The IQ difference between the two groups is more than twenty points.

This experiment shows the extraordinary importance of children's earliest experiences. Even in normal homes, where the mother is far from retarded, most children probably fail to develop their minds anywhere close to their genetic potential, because no one yet knows how to make their environments more conducive to such growth.

The key lies in what psychologist J. McVicker Hunt of the University of Illinois calls "the problem of the match": finding the most stimulating circumstances for each child at each point in his development, so that he will want to go just a little beyond what he has already stored in his brain. This requires a precise understanding of the sequences of intellectual development, and although much is known about development, an even greater amount remains to be discovered. However, those with an understanding of the recent research findings on child development and an ability to apply them should be able to impact on children in a positive way. The National Day Care Center Study findings certainly show this to be true. Those caregivers with some training in areas related to child development interact with children in center care in a way which results in significantly more positive child behaviors than result from situations where caregivers have had no training.

As Hunt points out, providing such stimulating circumstances requires clear goals. Most people do not realize the degree of specificity involved--the extent to which specific experiences lead to specific stepping-stones in psychological development.

As an example of this, Hunt points to some differences between children who were raised at home by their well-to-do parents (mostly professional people) in Worcester, Massachusetts, and eight children from very poor and uneducated families who benefited from an unusual experimental day care center in Mt. Carmel, Illinois. The day care center used a training program based on the theories of Jean Piaget (the "Infant and Toddler Learning Program," designed by Earladeen Badger). This program gave the children many opportunities to play with a graduated series of interesting toys. On tests of cognitive development, the Mt. Carmel children were found to reach certain stages described by Piaget six months ahead of the more privileged Worcester children. On the other hand, the Worcester children--who lived in very verbal families--began to imitate the sounds of unfamiliar words five months before the Mt. Carmel children. In each case, Hunt says, the infants learned exactly what their environments had given them the most experience in.

Controversy exists as to when it is best to intervene in the child's developmental growth. Many argue that the critical period is between 6 months and three years; others argue that it can be done at three years. Hunt believes that the competence acquired from early cognitive stimulation is cumulative, and that one should learn to make the most of learning at every age.

However, nearly all researchers agree that as the years go by, it becomes increasingly difficult to make any real changes in a child's mental ability--and that we need to find better ways to take advantage of those uniquely sensitive early years.

Focusing Attention on Each Child's Developmental Needs. As mentioned above the problem of finding a match, i.e., the most appropriate responses to and experiences for a particular child at each point in his development, is a difficult task. It is especially difficult because children of the same age developmentally have a variety of temperaments and will respond to and be affected by a given stimulus differently. Experts often classify children into three broad categories: the active or difficult child, the inactive or "slow to warm up" child, and the child in between these two poles.

Especially relevant for day care planning are the Thomas, Chess, Birch findings which point to the importance of screening children so that their temperaments can be identified. Caregiver attitudes and environmental conditions consonant with each child's needs can then be provided. The age of entry and composition of groups may also require manipulation for individual children. For instance, half-time attendance for a "Slow-to-Warm-Up Child" may speed the child's eventual adjustment to a group setting. Similarly, the number of "Difficult Children" within a single group may need to be limited or supplemented by additional caretakers. Thomas and Birch provided a program of parent guidance to enhance parent-child interactions (1977). Their findings that parents need to know and respect their child's temperament before they can effectively monitor their own inappropriate attitudes and behavior would hold true for day caregivers as well. Parent and caretaker consultation would also be an appropriate role for day care centers.

Escalona's study of active and inactive infants (1968) suggests that while development generally proceeds at an equal rate in active and inactive infants, the conditions necessary to support developmental progress differ for each type of infant. In general, active babies are less dependent on the environment for the stimulation necessary to maintain developmental progress, while inactive infants are less dependent on the environment for overcoming distress. The level of background stimulation given active infants in an ordinary home is generally enough to induce high level behavior, even if the infant is given little attention beyond routine care. Routine caretaking contacts are stimulating enough to elicit the child's most mature level of functioning. Similarly, the presence of objects and toys within reach and sight can elicit object-oriented behavior from the active infant. In contrast, inactive babies need more specific provocation to stimulate more complex body coordinations, object manipulations and social interactions. Schaffer (1966) shares Escalona's hypothesis asserting that a constitutionally active infant better maintains a DQ (Developmental Quotient) level throughout a deprivation experience than a less active infant and shows less decrease in DQ when deprivation is relieved. Thus for the inactive baby to make the same progress as the active baby in visual-motor coordination, vocalization and communication, more attentive and stimulating caregiving routines are needed.

Escalona points out that in some homes and institutional settings, caretakers approach children only when they appear to be in need. In such a situation, inactive infants will be approached and played with far less often than active infants. Since inactive infants can soothe themselves, caretakers may not always intervene when these infants do show distress because they know that the babies are likely to settle down on their own. The developmental consequences of such an environment for inactive infants can become severe in that these infants, who most require specific adult stimulation, are less likely to receive it.

Escalona's work, like the Thomas, Chess, Birch studies, underlines the necessity for the planning of day care environments to be sensitive to individual differences in children. It also underlines the need to be alert to day care study findings which lump all children together to obtain a "mean" level of performance or behavior. Although this level of analysis is acceptable for some purposes it may mask the plight of certain children--especially the "slow to warm up" child--in day care.

Age-Appropriate Materials

Research demonstrates that varied and responsive play materials that are appropriate for the age of the child in care enhance cognitive development. This is especially important for the infant, toddler, and preschool child (Yarrow et al., 1975; Clarke-Stewart, 1977; Carew et al., 1975; Piaget, 1952). In addition, toys support emotional growth. "One of their advantages is their neutrality: the child can use a toy in many ways to work out his feelings and ideas without evoking an emotional response from it. He can feel himself to be in control of the toy; he gradually learns that he not only controls what happens but is personally responsible for it, that is, that his act has consequences. In the long process the child goes through in learning to know himself and his environment, the opportunity to play with toys and other inanimate objects has an important place." 7/

7/ Provence, The Challenge of Daycare, 1977, p. 87.

Work with nursery school children suggests that the type and distribution of toys and playground equipment available may have an important influence on children's play and interaction patterns (as indicated in a review by Fein and Clarke-Stewart, 1973; and another by Prescott and David, 1976). Children have been reported to play longer with toys that were more complex (Moyer and Gilmore, 1955) or more novel (Gilmore, 1965).

Prescott and David note that cooperation and conflict are frequently reported as being differentially elicited by certain toys. Block play, for example, tends to be associated with more conflict between children than does clay, or housekeeping play. However, since there are also sex differences associated both with choice of toys (boys play with more blocks) and with frequency of aggressive behavior, it cannot be equivocally stated that the toys alone determine the types of interactions.

Prescott, in this same review, reports some of her own research that suggests certain features of toys and play equipment which determine the types of interactions. She identified factors of coerciveness/flexibility, complexity/simplicity (indexed by number of parts), and familiarity/novelty as each providing important experiences for children in day care.

Prescott expresses the opinion that children are better provided with an abundance of inexpensive, flexible materials rather than their having to cope with the frustration of fewer more expensive and "coercive" toys. Supplying such materials, she suggests, can contribute to the aims of positive self-concept and motivation and the enhancement of social, cognitive and communication skills prescribed in the FIDCR.

Studies by Prescott and Jones (1967) and Jersild and Markey (1935) as cited by Fein and Clarke-Stewart (1973) demonstrate that inappropriate play equipment (as well as crowding and inadequate supervision) produces stress in children. This emphasizes the need for age-appropriate materials and competent adults who can serve as mediators of these materials, especially for the child under two and a half years of age.

Competent Caregivers

The success of a developmental component depends on the presence of qualified caregivers and program supervisors who know how to implement the program objectives in terms of appropriate interaction with the children and their parents. A truly competent caregiver, who can respond appropriately to a child's expressions of need and who is sensitive to the individual differences in children, probably could support the age-appropriate development of a child effectively even without stated program objectives. For these persons program objectives serve to reinforce appropriate behavior. For less skilled caregivers, clearly stated objectives serve both to guide caregiving behavior and as a teaching tool.

Thus, age-appropriate materials, mediated to a great extent by an adult whose actions are guided by a set of objectives, are necessary for the development of the young child.

> "To be able to help create developmentally valuable experiences the other person must, first of all, understand the meaning of various behaviors and activities for the child's growth. Knowing what is challenging and valuable can come primarily from careful observations of the child on a day-to-day basis, through noticing what the child plays with and how he plays and through trying to understand what the child is learning. In their everyday interactions, the other person must learn to read the 'vocabulary of the child's behavior'--what he is trying to do, what state of understanding he is at, what developmental problem he is trying to solve, and consequently what kind of solutions are appropriate. The other person must be a good observer, not in the sense of note pads and stop watches but rather in the sense of interpreting and understanding the child's behavior.
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> The other person must also serve as provider of space and materials, taking down a toy from the top shelf or finding some scraps to make a puppet. The other person can also be the source of timely suggestions for finding 'something to do.' In all these ways the effective participant is also a facilitator of experiences.

> Yet another component of participation is the message to the child that what he is doing is important and interesting to the other person. Enthusiasm and praise, in addition to spending time or supplying objects, tells the child that what he is doing is important to both of them. Its opposite is conveyed to the child by constant refusal to play, even for a short time, by belittlement of the child's activity, or by continual restriction of the child's access to play things.
>
> Beyond the skills of observation, facilitation and encouragement are the actions and requirements of participation itself. To name a few: the language used must be comprehensible to the child; the style of teaching the other person adopts must be appropriate to the task; if the other person is trying to entertain, it must be pleasing to the child in order to be effective." 8/

Developmental Services by Mode of Care

What is the current status of the FIDCR educational component in centers and family day care homes? No specific data on the presence or absence of an education component was collected by the National Day Care Center Supply Study. However, 35.5% of the centers surveyed state they have a child development specialist on their staff. Often this is the director. Under the Educational Services Component, the FIDCR states that "educational activities must be under the supervision and direction of a staff member trained or experienced in child growth and development" (emphasis added). Thus, if it is assumed that the individual whom centers report as their child development specialist is also the person who supervises educational activities, then approximately a third of the centers located across the country appear to meet a portion of that requirement. Two-thirds apparently do not. There is no way of knowing whether the latter actually do not have someone who would qualify as a person knowledgeable

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8/ Environment, Experience and Intellectual Development of Young Children in Home Care, Carew, 1974; p. 778.

about child development. Some of them may, in fact, have someone who is perfectly capable of supervising child care activities, although not formally credentialled and thus, perhaps not identified by the director as a "child development specialist" when responding to the supply study interview. Still, a certain portion of these centers probably are without anyone knowledgeable about the developmental needs of the children in care. This could be a serious problem depending on how many centers this actually is.

Gwen Morgan (1976) states that:

- 27 states require center supervisors to have formal training or experience in child development.
- 32 states have similar requirements for their child care staffs.
- 33 states require or recommend educational materials for centers.

These figures show that approximately 60% of the states have codes that appear to match the requirements for staff qualification and availability of educational materials in the educational services component of the FIDCR. This suggests support for the expanded notion of a developmental component. Much more work will be needed if a developmental services component is to be effective. Forty percent of the states have to be convinced that this is a good thing for their own codes. The reasons for 65% of the centers not having a child development specialist on their staff need be identified. Is it because a specialist would be too costly? Is it simply a matter of mislabeling? For example, does the lead teacher have a degree in early childhood development but not call herself a child care specialist? It is clear that at least one individual on the staff must understand child development for the age of the child in care if a developmental services component is to succeed.

Little is known about the educational services component in family day care homes. Some light can be shed on the type of educational services offered by this mode of care as a result of the National Family Day Care Home probability survey of family day care home providers sponsored by ACYF. The questions asked about the structured services these providers offered were: 1) whether educational toys were available, and 2) whether the caregivers read to the children. Approximately 85% of these providers indicated they provided educational toys and read to the children. The ages of the children in care did not appear to be a factor in varying this percentage. Providers who had incomes above the poverty level, had at least a high school degree, were between 20 and 65 years of age, and who were white, were most likely to provide educational toys and read to children. No significance levels were computed. Nor was there any attempt in this analysis to unconfound income, race and education.

Differences Between Modes

It is important to investigate the kinds of differences that may exist among various modes of care. Such identification would make it possible to foster characteristic potential strengths, and to recognize and compensate for any characteristic potential weaknesses. Such compensation might, for instance, be allocation of funds for extra support services such as equipment-lending programs for family-based caregivers, caregiver training programs, or on site technical assistance by child development specialists. Obviously, any characteristic strengths or weaknesses will not be present in every instance; also, just as there are very good and very poor homerearing conditions for children, there are both very good and very bad family and center-based care facilities.

Some of the research on day care centers suggests that there are differences in the educational experiences gained by children in center care as compared with children in family day care or those raised in their own homes. In a study of 12 to 18 month old children, Cochran (1974) reports that cognitive verbal and exploratory behaviors are found less often in day care centers, where the environment is structured to be child-sized and child-safe. These children receive fewer verbal sanctions ("no, no's") than do children raised in either type of home care situation, and Cochran suggests, may be deprived of important learning experiences.

Cochran's findings have been interpreted by Bronfenbrenner et al. (1976, as demonstrating a deficiency in day care centers that is inherent in their being settings established specifically for children. In point of fact, there is little research evidence to indicate whether or not these experiences are important sources of education for young children. Arguments can be advanced, for instance, that limit-setting by adults helps a child learn self discipline. Other arguments could be made that, particularly for children so young, a more permissive environment with few sanctions is beneficial.

In a more general vein, Bronfenbrenner et al. (1976) note the rich opportunities available in a home setting for children to learn functional skills applicable in everyday life. The children see parents (or family-based caregivers) in a variety of roles, as "mother," "wife," "neighbor," "hostess," etc., and deal with an environment organized to serve a variety of purposes. Plants, pets, prized possessions, out-of-the-way private places, visitors--all these experiences often exist in the home environment and children learn to interact differently with each.

All in all, however, the issue of whether the day care center constitutes a more developmentally supportive environment in one or more dimensions (cognitive, social, emotional and physical) than the family day care home is still an open question. The answer will never be clearcut because there is a great variety in the quality of centers and family day care homes, and in the temperaments and needs of individual children. A care situation suitable for one child may not be suitable for the next.

Few studies have attempted to compare the two modes of care. One well designed study now being conducted by Dr. Sueann Ambron of Stanford University should provide some information on two and three year olds in center, family day care home and own home settings.

Data from the New York Infant Day Care Study examines the psychological experiences of individual children in licensed, though otherwise "ordinary", center and family-based day care (Policare, 1977). Data were gathered from children in 110 different home settings. Observers focused on a particular child and coded the interactions of that child with peers and the caregiver for one day. The specific kinds of data gathered emphasize: the child's physical environment including play materials, equipment and space available to the child, as well as how free or restricted the child is in exploring the environment; the caregiver's behavior with the child, which includes the amount of individual attention the child receives, as well as the specific cognitive/language and social/emotional stimulation provided to the child; and the child's behavior, which includes the child's cognitive/language and social/emotional functioning. Insofar as these various experiences can be considered "educational", and insofar as some experiences are reliably associated with one mode of day care rather than another, the data is a useful contribution to this issue. This study found that while the center and family day care children did not differ in their intellectual development during the first 18 months of life, by three years of age, center day care children obtained significantly higher scores on the Binet. The net effect of this finding is that center day care children maintain the same level of intellectual performance between 18 and 36 months. Family day care children manifest a decline in their performance during this period. At three years of age, the family day care children look very much like the home-reared children in terms of their intellectual development.

This difference in intellectual development was not mirrored in any of the other psychological measures at three years of age. Children cared for under the three types of child rearing conditions during the first three years of life--center day care, family day care, and at home--did not differ in their use of language or cognitive functioning outside a test situation, nor did they differ in how they related to people or coped with feelings.

The center day care programs were superior to the family day care programs in the amount of play materials, equipment and space available to children. Differences in the physical aspects of the day care environment were not, however, related to any aspect of children's later psychological development at three years of age.

On the other hand, the family day care programs were superior to the center day care programs in two important social aspects: the amount of social interaction and the amount of individual attention children received from caregivers. Of the other variables in which the family day care programs were superior, only these two were related to children's later psychological development at three years of age.

School-Age Day Care 9/

Most of what has been written about day care applies primarily to children aged two to five years, although increasing attention has been given to issues of infant care. But care for school-age children has remained unexamined and seldom discussed. This is indeed a serious oversight because:

- Social and cognitive competence of older children is also strongly influenced by the quality of their relationship with their caregivers, as found in Head Start (Miller and Dyer, 1975) and in Follow-Through first and third-grade programs (Stallings, 1975).
- Nearly 18 million children aged six to 14 have mothers in the labor force.

Although descriptions of model programs are useful in that they provide a sense of what ideally can be achieved, the literature is lacking in descriptions of the services communities realistically can be expected to provide. No empirical study or expert consensus has been identified that describes the type of day care program or programs--including developmental goals and activities--that are most effective for the school-age child.

Care provided school-age children differs in two ways from that given younger children. Differences in the developmental levels require provision of quite a different set of experiences and resources. In addition, there is an inevitable relationship between the day care service and the school, both in terms of the fluctuation

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9/ The FIDCR specify that school-age children must have opportunities to take part in activities away from the day care facility in accordance with their ability to become independent and accept appropriate responsibility. Because these children get their formal education in school, the role of day care staff is defined as "parent supplements." They do have the responsibility, however, of supervising homework and broadening the children's educational, cultural, and recreational horizons.

of hours the school year imposes and of the triangular relationship between home, school, and day care service. Thus, provision of service to school-age children may merit separate consideration.

According to the National Childcare Consumer Study (Unco, 1975), only five percent of school-age children are presently enrolled in any type of formal after school care. The percentage of school-age children in group or center care is much smaller. These statistics indicate that care for school-age children is not a highly visible or well developed service. One might postulate that organized group services for these children would be both easier and less costly to provide, since older children are more independent of adults and need fewer hours of care because of attendance at school. It is puzzling, therefore, that this service has not multiplied as rapidly as group care for preschool children. Some reasons are presented below.

The National Childcare Consumer Study found that 52 percent of the families surveyed who had at least one child between six and 14 years of age indicated they would like to see child care funds used for before and after school programs. Many parents, however, decide not to use a formal child care arrangement for their school-age children even when good arrangements are available and financially feasible. They consider their children responsible enough to care for themselves and often feel an informal arrangement with a neighbor or mother of a schoolmate is sufficient to provide some supervision. There have been no surveys conducted to determine just what percent of families with school-age children fall into this category.

School-age day care is not an easy service to provide. As children grow older, many rebel against close supervision. In addition, these children are active, have independent interests to pursue in the community and are very peer-oriented. The adult caregiver, although necessary in supporting development, must play a role that is very different from that required for the care of younger children. Few caregivers are trained to work with school-age children. Although it is possible to define the developmental needs of children over five years of age, it is quite another thing to structure programs that meet those needs.

In most programs for school-age children, activities are planned to coincide with the children's interests and abilities, past experiences (both at school and in the program), and present experiences (at school and at home). Opportunities for interaction with other children and adults are an important part of before and after school programs, as are opportunities for reflection and privacy. Observations of numerous programs for school-age children indicate that children spend only 1 percent of their time in academic activities (i.e., doing homework) (Prescott and Milich, 1974).

Comprehensive after school programs can be developed that coordinate services and programs for children (e.g., recreation programs, arts and crafts programs, athletic programs, Boy and Girl Scouts, and boys' and girls' clubs). In some cases, children check in with one of the after-school staff members and then leave to go to their activity sessions.

While program flexibility is important and may promote the children's growth and learning, programs for school-age children must also consider issues such as liability insurance, safety of the children, and responsibility of the individuals charged with their care. Family day care providers, who currently care for a large portion of school-age children, face these same problems and are confronted with additional problems related to reimbursement.

IMPLICATIONS FOR REGULATION

The present Educational Services component of the FIDCR meets the criteria for an effective developmental services component--with one exception. It does not require clearly stated program objectives. Empirical evidence indicates that all children need experiences that promote development in many domains (e.g., cognitive, social, emotional, and physical). For children away from their parents and in day care, and especially for children at risk, the occurrence of those experiences should not be left to chance.

Chance can be reduced, although not eliminated, by the establishment of clearly stated program objectives that are made available to everyone working in the day care facility and to parents using the facility. The administering agency or day care facility, not the Federal Government, should establish these objectives. There are many alternatives espoused by various responsible schools of thought in the area of child development. It would be presumptuous of the Government to set them.

Rather, the Government should focus resources on the ultimate goal, which is the well-being of children. And it should ensure a process by which that goal can be achieved, including requiring that providers specify the developmental goals and program objectives appropriate to that geographical area, the children served, and to that facility.

Similarly, the Government cannot guarantee hourly or daily efforts by the caregivers to attain the stated goals. It is physically impossible for the Government to monitor implementation of program objectives. That responsibility lies with the administering agency and, in the last analysis, with caregivers and parents themselves. The Government can, of course, promote implementation of successful programs by providing technical assistance, promoting inservice training of staff, and encouraging a competent supervisory staff in the day care facility to oversee implementation of program objectives.

One other matter should be clarified in the FIDCR. It deals with the need for special developmental services or efforts for children with handicaps and developmental problems.

Although no assessment of the developmental problems of Title XX children has been made, an indication can be extrapolated from Head Start population data, federally financed intervention studies and research on low-income families. 10/ These data indicate a disproportionate prevalence of problems among children of low-income families which impairs, over time, their ability to learn. Assuming specification of concrete objectives to promote the well-being of children in day care, those particular Title XX children who are at risk still will require special efforts

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10/ The NDCS Cost-Effects Study should also be able to provide some indication of the developmental needs of these children.

to move them toward the specified goals. This would require assessment of each child's status, availability of an individual skilled in planning and supervising the types of interaction these children need, and inservice training of staff. For some of these children, selective placement in facilities with sufficient numbers of very highly skilled caregivers may be necessary. It remains to be determined, however, whether the day care program should be responsible for this special effort required to promote the healthy development of these children. Most facilities lack a program and staff sophisticated enough to accomplish this. It is more realistic to require the administering agency to identify the resources necessary for work with these children.

An effective developmental component, then, would include provisions to insure age-appropriate program objectives. The objectives may well be less detailed for family day care than center care because of the difference in level of sophistication of staff, and of the setting where the care is provided. The activities developed to meet those objectives probably will differ as well. Although it may be argued that some developmental goals for children are basic and should be found in both center and family day care, it would be unrealistic, given the differences in staff sophistication, to expect uniformity of program objectives and activities. The fact that program objectives will not be uniform across modes of care is not necessarily a bad thing. If the objectives are stated clearly, parents can review them and judge for themselves the kind of care they want for their children. Well informed parents who have some understanding of what developmental goals are appropriate for their children could become important monitors of day care quality (Leon Yarrow, communication by letter, 1977).

Many parents, however, are not now in a position to make an informed judgment. An extensive information program about day care and children's developmental needs does not presently exist for parents. HEW should consider ways to enable parents to make informed decisions regarding their children's day care programs.

It is important to understand that the present Educational Services component includes the only provisions in the FIDCR that relate to caregiver competency. During the regulatory revision process, consideration should be given to making caregiver qualifications a separate section that would include provisions for entry-level skills and inservice training. (See Caregiver Qualifications for more detail.)

Finally, whether a Developmental component becomes a regulation or remains as a guideline, ways to support its implementation should be considered. Providing technical assistance to supervisory staff and inservice training to caregivers is one way. Providing explanatory materials and using newsletters are others.

IV. ENVIRONMENTAL STANDARDS

PROVISIONS OF THE FIDCR

The environmental component of the FIDCR is concerned with:

A. Location of Day Care Facilities

Interagency Requirements

1. Members of low-income or other groups in the population and geographic areas who (a) are eligible under the regulations of the funding agency and (b) have the greatest relative need must be given priority in the provision of day care services.

2. In establishing or utilizing a day care facility, all the following factors must be taken into consideration: [1]

   a. Travel time for both the children and their parents.

   b. Convenience to the home or work site of parents to enable them to participate in the program.

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[1] No universal requirements can be established to govern every local situation. There must, however, be consideration of each of these factors in light of the overall objectives of the day care program and the legal requirements which exist, such as Title VI of the Civil Rights Act of 1964 and Title IV, part B, of the Social Security Act.

   c. Provision of equal opportunities for people of all racial, cultural, and economic groups to make use of the facility.

   d. Accessibility of other resources which enhance the day care program.

   e. Opportunities for involvement of the parents and the neighborhood.

3. Title VI of the Civil Rights Act of 1964 requires that services in programs receiving Federal funds are used and available without discrimination on the basis of race, color, or national origin.

B. Safety and Sanitation

Interagency Requirements

1. The facility and grounds used by the children must meet the requirements of the appropriate safety and sanitation authorities.

2. Where safety and sanitation codes applicable to family day care homes, group day care homes, or day care centers do not exist or are not being implemented, the operating agency or the administering agency must work with the appropriate safety and sanitation authorities to secure technical advice which will enable them to provide adequate safeguards.

C. Suitability of Facilities

Interagency Requirements

1. Each facility must provide space and equipment for free play, rest, privacy, and a range of indoor and outdoor program activities suited to the children's ages and the size of the group. There must be provisions for meeting the particular needs of those handicapped children enrolled in the program. Minimum requirements include:

   a. Adequate indoor and outdoor space for children, appropriate to their ages, with separate rooms or areas for cooking, toilets, and other purposes.

b. Floors and walls which can be fully cleaned and maintained and which are nonhazardous to the children's clothes and health.

c. Ventilation and temperature adequate for each child's safety and comfort.

d. Safe and comfortable arrangements for naps for young children.

e. Space for isolation of the child who becomes ill, to provide him with quite and rest and reduce the risk of infection or contagion to others.

EVIDENCE REGARDING THE APPROPRIATENESS OF AN ENVIRONMENTAL REQUIREMENT

Location of Facilities

Only one source has been located that provides information on this element of the environmental requirement. In the National Childcare Consumer Study (Unco, 1975), the interview data consistently showed that the location of a day care facility and/or transportation factors did not substantially enter into the decision to select a particular day care facility, to change facilities, or to discontinue using a facility. Child-oriented factors (e.g., constant supervision, experienced caregivers, etc.) were ranked as most important in selecting a day care facility. However, according to this survey:

- Two-thirds of the parents queried indicated that the maximum time they would be willing to have their children travel to day care is between 10 and 19 minutes. No data were found on the amount of time children using Title XX facilities spend in transit. Thus, it has not been determined whether parents are satisfied with the present travel time or whether they find the location of the day care facility convenient, as is required in the FIDCR.

Safety and Sanitation

The FIDCR safety and sanitation requirements are intended to protect children in day care environments from potentially hazardous or harmful situations. The section does not establish specific safety and sanitation requirements, but relies on provider observance of local and State safety and sanitation codes to protect children from environmental hazards in day care. This presumes that the Federal Government is aware of the contents of such codes and that the codes have been found to be sufficiently stringent to minimize any risk to children in day care settings. However, no nationwide content analysis of State and local safety and sanitation codes for day care has been conducted.

There is evidence, moreover, that State licensing regulations vary greatly in content. For example, only 14 States prohibit the use of lead or toxic paint, and only 32 States require a telephone on the premises of a day care facility (Aronson and Pizzo, 1976). Many day care providers and administrators have indicated that day care facilities are subject to conflicting local safety codes, which are more oriented to restaurants and institutions than to child care settings.

In light of these problems, either specific safety and sanitation requirements are needed for day care facilities or, at least, guidance (technical assistance) should be provided by the Federal Government for setting environmental standards relevant to day care settings. In order to do this, the question of how young children should be protected in the day care environment must be addressed.

There are extensive data indicating that young children are in particular danger of injury and death due to accidents. Although information pertaining specifically to accident rates in day care facilities is not available, the general information available can be used to identify which environmental conditions in day care settings are likely to be hazardous to children.

Although birth-related traumas and pneumonia account for most deaths among infants under one year of age, accidents are still the cause of death for 55 infants out of every 100,000. Ingestion of food or objects account for the greatest number of accidental infant deaths, followed by mechanical suffocation, motor vehicle accidents, fires and burns and finally falls. Among children one to four years old accidents are the leading (32 per 100,000) cause of death. Motor vehicle accidents account for the greatest number of accidental deaths, followed by drowning, fires and burns, the ingestion of food and other objects, and falls.

Even among children between the ages of five and 14, accidents are the major cause of death (21 per 100,000). Motor vehicle accidents account for the majority of fatalities in this age group, followed by drowning, and fires and burns. Comparing the specific causes of accidental deaths of children in this age group to the causes of death for younger children, one can see the function of age in the differential vulnerability of children to environmental hazards.

Data from Vital Health Statistics for 1971 and 1972 (cited in Aronson and Pizzo) indicate that for children under six, falls, followed by complications of medical or surgical procedures, injury caused by animals or insects, bumping into objects or persons, and being struck by a moving object, are the most common types of accidents causing injuries that resulted in either restricted activity or medical attention (Aronson and Pizzo, 1976).

The National Electronic Injury Surveillance System (NEISS) also yields information on the risk of injury to young children. An NEISS data analysis (Pizzo and Aronson, 1976) indicates that for children zero to four, playground equipment, tables, beds, upholstered furniture, liquid fuels, cleaning agents, storage furniture and household chemicals are the most dangerous items. For school-age children (five to 14 years of age), bicycles, playground equipment, baseball, nails and carpet tacks, swimming pools, football, storage equipment, architectural glass, and beds are particularly hazardous.

Additional information on the potential hazards to children from toys and child care equipment is found in an analysis conducted by the U.S. Consumer Product Safety Commission over a three year period between 1973 and 1975 (cited in Pizzo and Aronson). Roller skates, tricycles, toy cars, trucks, flying airplanes, skateboards, wagons, and other riding toys were among the toys identified as most hazardous. The data on toy chests, highchairs, cribs, baby walkers and infant seats indicate that although these products are designed specifically for child care, they are inherently hazardous.

The research data suggest the dimensions of day care settings and programs to be addressed in the development of new requirements or safety guidelines so that the risk of injury and fatal accidents to children can be reduced. Four major areas for consideration in developing new requirements are presented by Aronson and Pizzo (1976):

(1) structural characteristics of the day care setting, including the equipment available;

(2) staff behavior monitoring the environment;

(3) child-staff ratio; and

(4) planning for emergency preparedness.

A summary of day care characteristics that would help to minimize risk, based on the Health Advocacy Training (HAT) Projects research, is provided in Table 1. This information suggests how knowledge of potential hazards to children can be translated into day care program characteristics (see Aronson and Pizzo, 1976, concept paper for a more comprehensive discussion of the risks of fatal and non-fatal accidental injury in day care, especially pp. 161 for specific environmental requirements).

Suitability of Facilities

The suitability of facilities subsection sets certain minimal requirements of varying degrees of specificity. One requirement mandates that there be adequate indoor and outdoor space for children, appropriate for their ages, but no information is provided on how to determine adequacy of space. Is it the amount of space, the variety of space, the equipment and resources available in the space, or perhaps the arrangement of the space? Research on the impact of space on children's behavior and comments of child care professionals on space in day care facilities have been examined, with the objective of identifying which aspects of space should be considered in writing new requirements or day care guidelines.

TABLE 1 Day Care Program Characteristics Measured by the Health Advocacy Training (HAT) 1/ Project

TABLE 1 Day Care Program Characteristics Measured by the Health Advocacy Training (HAT) 1/ Project

Motor vehicle and pedestrian accidents	Provide restraints for each child. Use restraints provided.
Fires, burns	Plans for emergency evacuation. Emergency plans approved by an evacuation expert. Plans for evacuation posted (of those with plans). Had a disaster or fire drill within one month. Had a disaster or fire drill within three months. Keep a log of drills. Heating elements insulated or installed to prevent burns to children. Fabrics used are fire resistive. Electrical outlets fitted with devices to prevent tampering. Hot water temperature does not exceed 120° (scalding) where children use it. Exit doors are equipped with panic hardware.
Suffocation, poison and ingestion	Walls checked for lead based paint. Plastic bags and small objects are out of children's reach. Toxic products are out of reach.
Falls	Outside stairs have safety gates or landings. Outside hazardous steps have ramps. Inside stairs have right hand descending railing. Openable windows are screened. Equipment is sturdy, without hazards (includes playground equipment).
Drowning, general injury prevention, emergency preparedness and management of injury	Perform environmental and safety checks. At least one staff member trained in first aid. First aid equipment is available in at least one area of the building. First aid equipment is available in each child care area. Policies include screening staff for any child abuse record or history. Policies include procedure for accident and injury management. Policies include safety precautions. Arrangements for transport of a sick or injured child to emergency facility. Emergency transport includes presence of an adult other than a driver. Provision is made for alternative coverage of child supervision when adult must leave for an emergency. Arrangements for emergency care are adequate (e.g., facility or service named provides emergency care).

1/ The HAT project is funded by the Administration for Children, Youth and Families (Grant no. OCD-CB-491). It involves 153 day care sites in southeastern Pennsylvania. The director is Susan Aronson, M.D. Health advocacy training and consultative evaluation is being provided these sites and the impact is being measured.

TABLE 1 (Continued)

TABLE 1 (Continued)

Prevent, Control and Manage Infectious Disease	Programs provide or arrange for children to have immunizations: DPT/DT, oral polio, rubella. Policy for daily health check. Policy for managing illness. Policy for routine health care including immunizations. Policy regarding child's attendance during illness. All employees screened for TB. Physician's health statement for caregivers required. Staff health statement received annually. Sick leave policy for caregivers and food service staff. Regular substitutes available. Handwashing consistently performed. Staff health habits appraised as a part of their evaluation. Trash stored covered. Rooms adequately ventilated. Temperature of rooms is between 65° and 78°. Potty chairs are not used. Laundry, food and toilet areas are separate. Handwashing facilities are in or adjacent to child care areas. Have a specific place for diaper or underclothes changing if it is done. Handwashing facility is in close proximity to underclothes/diaper area. Openable windows and doors are screened if used for ventilation.
Quiet Conditions (e.g., vision, hearing, retardation, etc.)	Programs reporting have children with or suspected to have the problem have had the following conditions diagnosed: visual problems; hearing problems; emotional disturbances; learning problems. Screening tests are arranged for, provided or checked on when done, to determine whether adequate for: growth assessment; vision; hearing; anemia; lead; G6Pd; sickle cell; urine; developmental. Medical check-up performed. Evaluation of a suspected medical problem performed. Follow-up treatment of a health problem. Dental check-up performed. Maintenance of children's health records. Adequate content of children's health records. Transfer medical records to school at least some of the time. Review health records at least once a year. Caregivers express concerns about child's health to health provider in writing Children brush their teeth. Infants are held for feeding. Bottle-propping is prohibited. Parents are consulted to coordinate food planning in home and day care.
Health Awareness Issues Applicable to More Than One Risk Factor	Member of staff meet with teachers to plan health instruction. Frequency of health instruction planning is routinely established, e.g., at least monthly, quarterly, or annually. Health procedures are discussed with children. Public service groups are involved in instruction of staff and/or children, e.g., police, fire, public health. Medical, dental and nutrition information is included at parent meetings. Health professionals from the community are involved in providing health instruction to children. Inservice meetings are used to discuss health matters.

Indoor Space

Amount of Space. The model guidelines for day care licensing (1972, HEW) indicate that at least 35 square feet of indoor space per child should be available for the care of children (exclusive of bathrooms, halls, kitchens, and storage places) and that at least 75 square feet per child should be allocated for outdoor space. The guidelines suggest that limited indoor space can be offset by outdoor space where shelter and climate permit.

According to Kruvant et al. (1976), these guidelines seem to be based more on historical precedent than on any research evidence. Forty States require the amount of space specified in the licensing guidelines, while six States have a 30-square-foot minimum. Two States allow centers with 25 square feet of indoor space per child. Another two States license centers with only 20 square feet per child.

Although research has been conducted on the impact variations in the size of space has on children, evaluation of the data is difficult because different environmental settings were used. Experimental rooms, hospital playrooms, nursery school rooms, and other various settings may be expected to evoke different behavioral responses from children. The arrangement of space and the resources available for the children observed varied as well. Finally, the children observed in these studies were assorted ages and it may be expected that any given environment will evoke different behavioral responses from children of different ages.

Sufficient data have been gathered, however, to indicate that size of space and the number of children in a space (density) do affect the well-being of children in care. It has been shown that provision of adequate amounts of space is important in controlling noise, providing necessary privacy, and preventing the discomfort and irritation, for both children and adults, that stems from hours of confinement in small spaces. Prescott and David, in their concept paper prepared for HEW on the "Effects of Physical Environment on Day Care," recommend that all programs under FIDCR regulation that provide six or more hours of care a day should have a minimum of 40 to 42 square feet per child. Cohen (1974) offers the following recommendation:

> Rooms need to be large enough for active play and a feeling of openness, but not so large that children feel lost or threatened. A playroom needs at least 35 square feet of usable space per child (not including storage areas). Fifty square feet per child is preferable. In larger programs, it is usually useful to have a room that is big enough for 15 to 20 children, but the size of the group should not be increased just because a big room is available. Smaller rooms are useful for specialized activities and when children require more quiet, individualized, or structured activities (Cohen, 1974, cited in Prescott and David, 1976).

McGrew (1970) reported that three and four year old children were observed to show more social interaction when in low-density settings and less physical behavior when in high-density settings. Conflicting findings were reported in a study using a hospital playroom for observation. Social interaction decreased but aggression and destructive behavior increased (Hutt and Vaizey, 1966) as social density increased.

As shown, studies of density have often yielded conflicting results. But a recent investigation by Rohe and Patterson (1974) offers an explanation for these differences. Most studies found that, as density in the day care environment increased, aggressive, destructive, and unfocused behavior increased. But these studies did not control for the availability of resources. Rohe and Patterson, while controlling for density, found that, as the availability of play materials increased, cooperative, constructive, and participatory behavior increased. Rohe and Patterson indicate that day care environments should be low in density (at least 48 square feet per child) and high in resources. They conclude that under these conditions, children show the highest percentage of relevant participation, cooperation, and constructive behavior (research cited in Prescott and David, 1976).

The Child Welfare League of America has recommended the following standard for indoor and outdoor space:

Size of Playrooms

> "A ratio of 50 square feet of playroom floor space per child, exclusive of space occupied by sinks, lockers, and storage cabinets, is the optimum requirement for appropriate program activity and comfort...
>
> The playroom should provide room enough for each child to move about freely during activities, and sufficient space for a variety of activities to take place simultaneously without the children crowding each other.
>
> A minimum requirement for indoor space of 35 square foot per child may be adequate where climate permits on interrelated use of indoor and outdoor space for most of the year."

Size of Outdoor Play Area

> "To permit active play, it is desirable to have 200 square feet per child of outdoor space, with a variety of equipment, both large and small, stationary and movable, for each group of children..." (cited in Prescott and David, 1976).

Albert Collier, M.D., of the Frank Porter Graham Center, has indicated that the amount of indoor space available is important in limiting the spread of infections. The smaller the space available the greater the likelihood that children will have extensive contact with each other, which is related to the spread of infections (Aronson and Pizzo, 1976).

Although the evidence on the impact on young children of variations in space is inconclusive in terms of long-term physical, social, emotional, and cognitive, growth, the data identify the kinds of behavior (e.g., cooperation, aggression, task attentiveness) as well as health factors that are influenced by the amount and arrangement of space in day care settings. Since several experts suggest--and most State licensing codes require--a minimum of 35 square feet per child, that is at least a base point from which to begin discussions on new space requirements/guidelines for day care.

Outdoor Space

As mentioned above, outdoor space can complement indoor space, and, when indoor space is limited, outdoor space may offset any constraint on activities.

In discussing the purpose of an outdoor play area, the Child Welfare League (1973) has stated:

> "Outdoor play is not only important for the child's health, but it is an integral part of his learning experiences. Outdoor play space should offer opportunities for adventure, challenge and wonder in the natural environment...."

If, indeed, the purpose of outdoor space in day care is to provide a variety of learning experiences to children, then Federal requirements and/or technical assistance are necessary to ensure that the outdoor space in a day care facility fulfills this purpose under safe conditions. The Child Welfare League (1973) has recommended physical requirements for outdoor space which take into account the various activities planned for the outdoor site and which reduce the potential risk to children playing in the outdoor space (see Prescott and David, p. 61-62).

Research has shown that outdoor space -- like indoor space -- has an impact on children and caregivers. One study (Johnson, 1935) reported that the amount of playground equipment available to nursery school children influences interactions among the children. Supporting the data on indoor space by Rohe and Patterson (1974), it found that a reduction of play materials in outdoor space was accompanied by a rise in "undesirable behaviors" (e.g., teasing, crying, quarreling and hitting).

Kritchevsky (in Prescott and Jones, 1967) reported that outdoor areas which had several types of ground cover, such as grass, asphalt, and sand, were better for play than outdoor areas surfaced with a single material. This is true because certain ground structures are more conducive to some activities than to others. For example, asphalt is particularly suited to bicycle riding and the use of other wheel toys.

The discussion on indoor and outdoor space does not provide absolute descriptions and dimensions for establishing adequate space. Based on available research, it has not been possible to draw firm conclusions about how specific spatial dimensions affect children and providers in day care facilities. However, both the comments of day care advocates and practitioners and research information presented in this section should be considered when developing new day care requirements. In particular, such requirements should be more specific and enforceable than the provision in the present FIDCR mandating adequate indoor and outdoor space. For additional information, the reader is referred to the following documents, which served as sources to the present discussion: Kruvant et al. (1976), and Prescott and David (1976).

Additional dimensions of the environment which might be considered in defining suitability have been identified in concept papers (e.g., Prescott and David, 1976; Kruvant et al., 1976) and recent papers on day care standards. They include: acoustics, organization, and design, including variety, softness, and privacy.

Acoustics. Research into the effects of noise on task performance in laboratory settings is equivocal (Kryter, 1970, cited in Prescott and David, 1976). There is concern, however, that subjecting children to excessive noise in daily situations may be harmful. It is agreed that what constitutes a satisfactory acoustical environment differs for children and adults and is influenced by the mood and background of the listener. In bad acoustical conditions, teachers often are more miserable than the children (Environmental Criteria, 1971, cited in Prescott and David, 1976). It can be assumed that this will affect the teachers' job performance.

The specific acoustical factors considered in the Environmental Criteria are pitch, volume, regularity, and nature of sound, as well as reverberation. Reverberation is a function of the volume and emptiness of space (Environmental Criteria, 1971, cited in Prescott and David, 1976). The control of reverberation -- that is, the persistence of sound in a room -- is an important aspect of sound control. It is directly related to the ease with which speech can be understood in areas in which a variety of loud activities are being carried on at the same time -- this situation being characteristic of day care centers.

Day care advocates and practitioners (Cohen, 1974; Child Welfare League, 1973; and Environmental Criteria, 1971, cited in Prescott and David, 1976) agree that sound absorbing materials should be used on walls, ceilings, and floors to reduce indoor and outdoor noise levels in day care facilities.

Organization and Design. Kruvant et al. (1976) emphasize that the design and organization of indoor space affect the interactional behavior of the people who use the space. They specify that variety, organization into separate areas, provision for privacy, and provision for "soft" areas are primary features of quality space design and organization. Organization of the day care environment is also important because it defines the child's and the provider's use of the room. According to Dwayne Gardner (Kruvant et al., 1976),

> ...the organization of the space, the placement within of centers of interest, dictates the flow of learning activities. A well-organized and efficient space reduces confusion, disorder and discipline problems.

Kruvant et al. suggest that many of the behavioral problems in children that confront day care providers (e.g., aimless activity, constant running, aggressive or withdrawn behavior) can be alleviated by rearranging the furniture within the space to create separate and distinct learning areas.

Variety. Environments that have varying colors, textures, and lighting, as well as different toys and objects for children to play with and explore, present children with challenges and opportunities to learn to cope with change -- an aspect of intellectual development (Piaget, 1963, cited in Kruvant et al., 1976).

Softness. Kruvant et al. (1976) also specify the importance of soft flooring, including pillows and rugs, places to curl up and be cozy in, and places in which to cuddle. It has been reported that "after reconstructing areas of the classroom with soft fabric, carpeting and pillows...when children entered the area, their behavior immediately changed from active to more subdued" (Prescott and David, 1976). In addition, the Pacific Oaks assessment of day care space usage reported that high quality space, which is characterized in part by a high softness rating, was "associated with sensitive and friendly teachers, (and) interested involved children...."

Provision of comfortable adult-size furniture (couches, armchairs, and other soft, cozy furniture) also should be encouraged.

Privacy. In a study of 14 preschools, provision of privacy was one of two indicators of space usage associated with high levels of positive interaction (e.g., attending to tasks, initiating conversation, being considerate of others, etc.) (Sheehan and Day, 1975). Kruvant et al. stress the need of children and providers for privacy. Adults need privacy too, according to the NDCS Infant Day Care Study (Abt, 1977). "Rest breaks" away from the children allow staff members to relax and recharge.

Other Requirements

Suitability requirements specify that separate rooms or areas for cooking and toilets must be provided. This requirement does not necessarily ensure that the facilities are safe and sanitary. Because the FIDCR safety and sanitation requirements mandate observance of local codes, the health status of children and provider would be protected only if bathrooms and kitchens are specifically covered by local sanitation codes.

In addition, the FIDCR requires that room ventilation and temperature must be adequate for each child's safety and comfort, although levels for adequate ventilation and temperature are not specified. Nor does the requirement cover the humidity level of the rooms in the day care facility. According to Pizzo and Aronson (1976) "adequate humidification, temperature control and ventilation of the environment enhances the child's and adult's mucous membrane resistance and recuperative functions. Humidity and room temperature are related."

The FIDCR provision for floors and walls mandates that they must be nonhazardous to children's clothes and health. This provision permits a wide range of interpretations. Although it is commonly held that young children should be protected from surfaces painted with lead base paints and that floor surfaces should minimize the hazard of slipping, these safeguards are not guaranteed under the FIDCR.

The FIDCR require safe and comfortable arrangements for naps. This is particularly critical for young children receiving a substantial number of hours of day care (six or more a day) and it is important as well for children who are ill. Young children when tired are not able to participate fully in day care activities and thus may miss potential learning experiences. In addition, enough sleep and rest is important to maintain resistance to infections. Thus, it could be argued that by providing young children with the opportunity to nap, their health status is being protected.

Throughout this analysis of the suitability of facility provisions, the strengths and weaknesses of the provisions with regard to children have been highlighted. It has been a particular concern to indicate where the provisions do not appear to protect children's health and physical status.

IMPLICATIONS FOR REGULATION

Safety and Sanitation

The FIDCR rely on State and local safety and sanitation codes to protect children and day care providers from potential environmental hazards and harmful situations. The Federal Government has no assurance, however, that State and local codes, many of which were written for facilities other than day care, will adequately insure the well-being of the child in the day care environment. These codes do not, for example, cover the safety of play equipment. No overall assessment of these codes has been made. Often there is little coordination among agencies responsible for the various codes, producing codes that sometimes are contradictory.

Given the vulnerability of young children to fatal and nonfatal accidents, one group of experts (Aronson and Pizzo, 1976) has suggested that HEW promote national safety, health, and sanitation codes to help alleviate this problem. This could be done by providing incentives to encourage localities to coordinate various regulations to minimize or eliminate contradictions. Another group of experts (Kruvant et al.) suggests that levels of acceptable compliance could be built into the regulations. One level would be provisions that are absolutely necessary for the protection of children; these would have to be met before licensing. A second level would be recommendations or goals for quality care.

Suitability of Facility

State and local codes currently determine the square footage (indoors and out) required for each child in care. These codes often are ambiguous because they do not indicate whether the square footage refers only to space uncluttered by furniture (open space) or to all space in a facility, including bathrooms, etc. The HEW State model licensing codes suggest 36 square feet of space per child as a minimum (excluding bathrooms, halls, kitchens, etc.).

Some of the empirical research which assesses the impact on children of the amount of space, acoustics, privacy and variety of space in day care has been discussed above. Due to methodological limitations, the data are only suggestive of the possible influence of these variables on young children. Several experts in the field of day care and many of the State licensing codes are in agreement that there should be a minimum of 35 square feet of indoor space per child and have suggested specific environmental dimensions that are important in day care. To respond to the present need to evaluate the appropriateness of the environmental provisions, additional expert opinion should be solicited and used to frame specific environmental guidelines/requirements. Also, new research should be undertaken to assess the impact of specific day care environmental dimensions on children and providers.

As indicated above, several elements other than size and density influence the suitability of space. Acoustics, organization, and design all have been shown to affect the behavior of both children and caregivers in a day care facility. The FIDCR, however, do not address any of these elements. In addition, the FIDCR do not elaborate on what provisions should be made to insure privacy.

Technical assistance and in-service staff training, rather than regulations, may be the best way to achieve adequate, well-organized space. One group of experts who convened to discuss the requirements for physical environment suggested that on site assistance in arranging the physical environment and making improvements in space usage should be available from the operating or administering agency (or their consultants). This group found that few early childhood curricula include courses in "arranging the physical environment." They conclude that because so few teachers learn about space in early childhood degree programs, in-service training is particularly important in this area. They also conclude that training of all day care providers, and certification of family day care home providers, should give first priority to safety, health, and space issues.

The current requirement of space for isolation of the child who becomes ill has been found to be inappropriate. In a paper prepared for this report, health care experts indicated that new reserach shows that total isolation of the sick child does not limit contagion. Total isolation may serve only to distress the child who is ill. Space for a quiet area should be available for the rest and care of the sick child, but restricting the sick child only to this area is not recommended.

Implementation

During the hearing on the preliminary draft of this report, several day care representatives voiced concern that environmental requirements could impose unnecessary uniformity on day care facilities. Others argued that certain minimum requirements are necessary to protect children. The issue of uniformity is complex. Traditionally, localities have imposed their own standards, which often reflect the geographic or regional characteristics of the area in which they are located. Where climate typically is conducive to outdoor activities year-round, for example, standards may be less concerned with the indoor environment of the facility. For these and other localities with unique characteristics (e.g., Indian reservations) uniform requirements may impose a heavy burden. It has been suggested that if Federal minimum codes are imposed, technical assistance and funding could be provided to improve those facilities that have difficulty meeting them. Careful consideration should be given this issue during the revision process.

V. NUTRITION

PROVISIONS OF THE FIDCR

The FIDCR nutritional requirement states that:

> "The facility must provide adequate and nutritious meals and snacks prepared in a safe and sanitary manner. Consultation should be available from a qualified nutritionist or food service specialists."

The general intent of this requirement appears to be straight forward -- to provide children in day care settings with nutritious meals and snacks.

THE NUTRITION COMPONENT IN PRACTICE

Children in full-time day care, whether in a family day care home or in a center, must be fed. Current evidence suggests that center-based programs provide better quality nutritional services than family-based programs. Day care observers offer several reasons for this. It may be that family day care providers have limited knowledge about what constitutes good nutrition. Or such providers may receive low fees, which limit the kind and variety of foods they can purchase. Finally, because family day care providers must perform many tasks in addition to meal preparation, they may not be able to devote sufficient attention to this task.

- The New York City Infant Day Care Study (Golden et al., 1978) investigated the nutrition of children in center and family day care on the basis of positive, negative, and total nutrition scores. On all but one measure, there were large and highly significant differences favoring center over family day care. Children in day care centers received more types of nutritional food than children in family care. Though it was found that both centers and family day care homes served "negative" foods, children in family care received more types of negative foods than center children. ("Negative" food was defined as "junk" or "empty calorie" food, or foods unsuitable for children of this age, such as olives with pits.) Measures of total nutrition also favored center care.

- Direct substantiation of the potential role of day care in meeting the nutritional needs of young children is found in a study of 11 day care center programs in Texas (Feeding Programs for Preschool Children in Texas, cited in Pizzo and Aronson, 1976). At these centers children in the samples received more than 60% of Recommended Daily Allowances (RDA) for most nutrients, with the exception of iron, magnesium, vitamin E and thiamine. In another study conducted in Philadelphia (Adebonojo, Festus, and Strahs, 1973) the prevalence of nutritional anemia in children enrolled in day care centers was found to be significantly less than in a control group of children not in day care but matched on socioeconomic status and physical characteristics. The children enrolled in day care were between 7 and 32 months of age and had been in attendance at the center between 2 and 9-1/2 months. The children were fed breakfast, lunch and two snacks at the center. Conclusive evidence does not exist in the study, but the authors suggest that the day care children may have been receiving iron more consistently in their meals at the center.

- Two studies that surveyed family day care providers found that the majority of these providers lacked a basic understanding of good nutrition.

- Operators of sixty percent of FFP centers state they have their meals planned by a nutritionist (NDCS Supply Study, 1977).

- Ninety percent of all family day care homes in the National Day Care Home Study provided one meal a day; 56 percent provided at least two meals a day; 19 percent provided all three meals; 91 percent provided snacks. Providers were not asked to describe the contents of these meals and snacks. No information was obtained about whether a nutritionist or food service specialist was available for consultation in Title XX day care homes, as is mandated in the FIDCR.

EVIDENCE REGARDING THE APPROPRIATENESS OF A NUTRITIONAL REQUIREMENT

Several regional and national surveys of the nutritional status of children in day care, and several studies of existing nutritional practices in day care were examined. In addition, studies assessing the impact of various degrees of malnutrition on the development of children were examined.

Many studies assessing the nutritional status of children rely on parental reports of their children's food intake throughout a 24 to 48 hour time period. These reports of food intake, which may vary in their reliability, are then compared to a set of nutrient and calorie standards set for the child such as the Recommended Daily Allowances (RDA). Children are then classified as receiving sufficient or insufficient specific nutrients in their diets. The RDA are not the minimum daily requirements. Rather, they represent the best estimate of the minimum requirement plus an additional percentage factor added in an effort to provide for individuals whose needs may exceed those of the majority, and on whose needs the minimum daily requirements are based. When using the RDA as a basis for analysis it should also be remembered that the RDA is based on a small and not necessarily representative sample (Scrimnshaw and Young, 1976). Using nutritional standards such as the RDA for children is particularly difficult because as children grow their metabolic rates change; that in turn alters their nutritional needs. When these caveats are considered, it appears that classifying children as nutritionally deficient if their consumption of nutrients falls below the RDA may not be accurate.

Other techniques commonly used to assess an individual's nutritional status include biochemical evaluations and anthropometric measures. Since these tests also vary in precision, they are often used together to improve accuracy (Ricciuti, 1972).

Like the surveys of nutritional status, studies which examine the impact of malnutrition also require care when interpreting the findings. Many of these studies were conducted in Asia, Africa and South America and thus the reliability of generalizing the findings and applying them to young children in the United States must be questioned. Also, methodological limitations of the studies may make interpretation of the data difficult. Many of the studies used ex post facto designs, for example, and in some instances the outcome variables selected for study were not culturally relevant to the children under study (Pollitt, unpublished paper).

Despite these limitations, a survey of relevant research offers valuable insight and guidance on the nutritional status of children, the effect of nutritional status on behavior, and the role of day care in providing nutritious meals.

The Nutritional Status of Young Children

Three national surveys and several regional studies (reviewed in Owen and Lippman, 1977) provide information on the prevalence and location of malnutrition in the United States. The Preschool Nutrition Survey studied 3,400 children between one and five years of age in 36 states and the District of Columbia. The Ten State Nutrition Survey evaluated the nutritional status of 40,000 individuals, including 3,700 children under six years of age. The Health and Nutrition Examination Survey (1971-1974) studied children from 35 primary sample units; by the conclusion of the first half of the survey 3,500 children under 18 had been examined, including 1,500 children under six years of age.

In the United States severe malnutrition 1/ -- marasmus or kwashiorkor -- is rare. The survey data on preschool children indicate that chronic undernutrition

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1/ Malnutrition has been defined as "the state of impaired functional ability or development caused by an inadequate intake of essential nutrients or calories to provide for long term needs" (Read, 1974).

or moderate malnutrition is somewhat more common. Chronic undernutrition may be caused by vitamin deficiencies, mineral deficiencies or limited consumption of food (Read, 1976). From the Preschool Nutrition Survey (Owen, Kram, Garry, Lowe and Lubin, cited in Read, 1976) it appears that 20% of the children under six years of age consume less than the recommended daily intake of calories and the figure is higher, 30 percent, for children under six from low income families. Children from Southern States, low socio-economic Blacks and Hispano Americans are more likely to be at risk of being chronically undernourished (Read, 1976) than is the general population of children.

In two of the surveys, the relationship between socio-economic status and the intake of nutrients was most evident for vitamin C. Approximately one-third of the lower class children in the studies had daily food intakes of ascorbic acid which were one half of the RDA. When vitamin supplements and biochemical data were considered, 10 to 15 percent of the lower class children still had borderline low levels of ascorbic acid intake.

Besides the data on nutrient consumption, additional relationships were found between socio-economic status and indices of nutritional status in the children examined. Lower socio-economic status children were smaller in size. This finding adds support to the data cited above suggesting the presence of chronic under-nutrition in this subpopulation (Preschool Nutrition Survey, Owen, Kram, Gary and Lowe, 1974, Ten State Nutrition Survey, Health and Nutrition Examination Survey cited in Owen and Lippman, 1977).

Wide prevalence of iron deficiency was consistently observed in national, regional and local surveys of the nutritional status of children. In the Preschool Nutrition Survey and the Health and Nutrition Examination Surveys, between 20% and 30% of the children were found to have low levels of iron intake. Anemia was found to be more prevalent among lower class preschoolers than among their middle class counterparts (Owen, Lubin and Garry, 1977). In the Ten State Nutrition Survey (1972) children under three were reported to have dietary intakes sufficient to meet all nutritional standards with the exception of the standard for iron. The regional studies reviewed by Owen and Lippman (1977) indicated that iron deficiency is the primary nutritional problem in children under five. The data from biochemical assessments support these findings. No other equally widespread nutritional deficiencies have been identified in children. But in such selected subpopulations as Native Indian groups, Blacks, and Mexican-American migrants, biochemical assessments and dietary intakes have indicated that the children had significant incidences of nutritional deficiencies (Owen and Lippman, 1977).

Given the relationships between nutritional status and socio-economic status mentioned earlier, there is a high probability that many of the children presently eligible for Title XX day care are particularly prone to suffer moderate malnutrition or have specific nutritional deficiencies. It would be a mistake, however, to design a nutritional component in day care with only these nutritional problems in mind.

Obesity is another nutritional problem found in young children and is often due to a combination of overeating, lack of exercise and an imbalance of proper nutrients (Ten State Nutrition Survey, 1970). Although the criteria for diagnosing a child as overweight can vary from survey to survey, a recent study measured the triceps skin fold thickness of 3,344 children (Stunkard, d'Aquili, Fox and Filcon, 1972). When a child's skin fold thickness exceeded the mean skin fold thickness by one standard deviation for children of the same sex and age group examined in the study, the child was diagnosed as obese. Using skin fold thickness as the index of obesity it was found that for girls six years of age, obesity was more prevalent among girls of lower socio-economic status (29%) than in girls of upper socio-economic status (9%). By age twelve, however, the difference between the two socio-economic groups was minimal. Among six year old boys tested, a less pronounced socio-economic status difference was found: 40% of the lower class boys and 25% of the middle class boys were diagnosed as obese. Data collected on older boys indicated that the relationship between socio-economic status and obesity was reversed. For example, at age twelve, more middle class boys than lower class boys had obesity problems.

Due to sampling limitations, the study by Stunkard et al., does not offer a clear sense of the degree of obesity that is likely to be found in children eligible for Title XX day care. The survey does suggest, however, that obesity is a nutritional problem which should be considered when planning nutritional programs for day care.

Relationship Between Nutritional Status and Development in Young Children

The research on young children indicates that the age of onset, the severity, and the length of time that malnutrition goes untreated are all important determinants of its relative impact on development. After reviewing over twenty studies of severely malnourished children in Latin America, Asia and Africa, Pollit and Thomas (1977) concluded that "severe protein-calorie deficiency occurring throughout most of the first twelve months of life among populations where malnutrition is endemic results in a severe deficit (1-2 standard deviations below the average of 100) in intellectual function as compared to standards from the same population." One possible factor involved in the effect of severe malnutrition on behavior is the possible reduction in the number of brain cells (Read, 1973). In reference to severe malnutrition occurring during the first year, Ricciuti (1970) stated that the effects on intellectual development do not appear to be readily reversible through medical and nutritional treatment. Unlike severe malnutrition during the first year of life, severe malnutrition during the second year of life may -- but does not always -- affect intellectual functioning. And the effects on development appear to be more responsive to treatment (Ricciuti, 1970, Pollitt et al., 1977).

Compared to the studies on severe malnutrition, the studies on moderate malnutrition are less consistent in their findings and nutritional status does not appear to be as strong a predictive factor for development. Also, the effects of moderate malnutrition appear to be reversible (Ricciuti, 1970).

The data indicate that where malnutrition is present other related social and environmental conditions play significant roles in determining behavioral changes. Moreover, it has been suggested that as the severity of the nutritional insult decreases the relative importance of these social and environmental factors increases. For example, malnourished children often come from families with a history of poorer housing, greater health problems, less stable family situations, less maternal education and greater financial disadvantages than is typical of families in the same locale without malnourished children. These environmental variables play an important role in determining the kinds of opportunities and experiences a child will have. An illustration of how environmental variables and nutrition status interact is found in a study of Jamaican boys between the ages of six and ten who, before reaching two years of age, had been hospitalized for severe malnutrition (Richardson, 1974). The impact of the malnutrition on the children's intellecutal development varied with the social conditions under which the children lived. Those children from families in poor neighborhoods who scored higher on socio-economic indices (e.g., housing conditions, level of maternal education, availability of human resources etc.) had less profound IQ reductions when tested.

Besides the hypothesized physiological impact of malnutrition on brain development, behavioral changes linked to nutritional deficiencies have been suggested as a contributing factor in the apparent intellectual retardation observed among malnourished children. Children diagnosed as suffering from severe malnutrition are often characterized by apathy, lethargy, withdrawal and lack of responsiveness to environmental stimuli -- symptoms which could interfere with cognitive performance and development (Ricciuti, 1973). If the malnourished child is apathetic and withdrawn, for example, such behavior will have clear implications for later development. The apathetic child initiates few contacts with the social world and is minimally responsive to either social or physical stimulation. In addition, the malnourished child's exploration of the environment is reduced. Thus, the child's opportunities for learning are limited (Read, 1976). According to Piaget, it is the opportunities for exploring and interacting with the environment which are crucial to development (Read, 1976, Pollitt and Thomson, 1977). Thus, given the limited opportunities for learning which malnourished children have, it is not surprising that their rate of development will be slowed. 2/

In view of the prevalence of iron deficiency anemia. among young children it is important to know if anemia has

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2/ For a more detailed discussion of the impact of malnutrition on development the reader is advised to read the following recent critical analyses and summaries of the research in the field: Ricciuti, 1973, 1970; Pollitt and Thomson, 1977; Pollitt, unpublished; Read, 1976.

any affect on behavior. Two studies failed to find a relationship between anemia and preschool IQ (Sanstead, Carter, House, McConnell, Norton and Vander Zwaag, cited in Ricciuti, 1973, and Beller and Howell, cited in Ricciuti, 1973). Lowered performance on intelligence tests was found when anemic deficiency was coupled with signs of malnutrition in Head Start children (Sulzer, Hansche, and Koenig, cited in Ricciuti, 1973). Since attentiveness was lower in the anemic group of Head Start children, this factor may have been responsible for the lower test scores. Anemic deficiency in preschoolers also has been found to be associated with fatigue, apathy, irritability, lowered attention and task concentration (Beller and Howell, Sulzer cited in Read, 1975).

On the basis of this data, it appears that intelligence is not readily affected by anemia but that anemia is related to other specific behaviors. The data is in keeping with the previous research summarized on malnutrition; as the degree of nutritional insult to the child decreased, the impact of nutritional status appears to be associated more with emotional state and attention span than with cognitive behavior (Read, 1975). After reviewing the research on specific nutrient deficiencies, Ricciuti (1975) has voiced concern that we do not yet know what the effects of specific nutrient deficiencies might be if the deficiencies were severe and/or prolonged, though there is no evidence thus far that anemia during early childhood results in permanent neurological damage.

Another question to be considered is how the food served to children in day care affects their behavior.

A recent review paper by Pollitt, Gersovitz and Gargiulo analyzed research reports on the immediate and long term effects of school feeding programs on children enrolled in preschool or grade school. One observational study (Keister, 1950) of children between 27 and 60 months of age strongly suggests that serving children fruit juice instead of water for a morning snack reduces nervous habits, hyperactivity, withdrawing and hostile behavior. Another study indicated that fifth graders performed better on arithmetic and letter symbol decoding after having mid-morning orange juice. In another study the attention span of first graders was not affected by an instant breakfast drink.

With regard to the immediate impact on feeding children during the school day, Pollitt et al. suggest that different kinds of behavior may be differentially sensitive to nutritional variables. Although variations in home food intake was not controlled and outcome variables often were not well operationalized, Pollitt et al. concluded that morning foods supplements have beneficial effects and missing breakfast may have adverse effects on children's emotional behavior and academic work. Of the seven projects reviewed by Pollitt et al. which investigated the long-term impact of school feeding, however, five did not find any differences. Also, there were methodological deficiencies in the two studies which detected improved performance in scholarship and on achievement tests among children participating in a milk or breakfast program. In one of the studies, the teachers' knowledge of the students participating in the breakfast program might have influenced the results. The other study reported that fifth graders enrolled in a breakfast program performed better on achievement tests than their counterparts not participating in the program; however, significance levels were not reported and the findings may be called into question because of the different schools which experimental children and their controls attended.

Summary of Finding and Conclusions

As many as one third of the children currently eligible for federally funded day care are likely to be at risk in terms of inadequate caloric intake and vitamin deficiencies. Insufficient caloric intake and specific nutrient deficiencies can lead to moderate malnutrition (undernutrition), which has been associated with deficiencies in the motivation and reading skills of young children, as well as with greater fatigue and irritability. Thus, it is important to provide children with nutritious meals and snacks in day care to help insure that their overall diets are nutritionally sound. The provision of nutritious foods in day care also has been observed to have immediately beneficial effects on the behavior of young children. Nervousness and hyperactivity have been reduced after the consumption of such snacks and meals (Ricciuti, 1972, 1976).

Research on malnutrition has shown that physical and chemical changes in the body caused by malnutrition during the first year of life can continue into adulthood. However, research on children exposed to malnutrition during the second year of life and then removed to a more stimulating environment with proper feeding indicates the effects of malnutrition can be reversed. This is especially true of cases of more moderate malnutrition (Ricciuti, 1970; Pollitt et al., 1977). Ricciuti (1972, 1976) points out, however, that specific effects of malnutrition are difficult to separate from other environmental conditions usually closely associated with malnutrition.

IMPLICATIONS FOR REGULATION

Some childcare experts, especially those working in the area of child health, believe this requirement is not well-defined and may, given a minimal interpretation, prove to be insufficiently comprehensive.

- The term "adequate nutritious meals and snacks" is vague. The FIDCR fail to define, for example, how many meals and snacks should be served and what criteria should be used to determine their nutritious quality.
- Anemic deficiency in preschoolers does not readily affect intellectual development. It has, however, been found to be associated with fatigue, irritability and lowered attention spans, which can undermine cognitive performance. According to two experts (Pizzo and Aronson, 1976), given the high risk status of some children qualifying for Title XX day care, it is important to screen for evidence of iron deficiency anemia and to provide iron and vitamin rich diets in day care.
- The FIDCR nutritional requirement mandates only that the child be provided meals and snacks. In comparison, the Head Start nutritional standards have gone beyond the FIDCR by mandating that meal and snack times should be an opportunity for the child to learn about the relationship between nutrition and health. In addition, programs are instituted by the Head Start facility to acquaint parents with basic

nutritional information. Many childcare experts feel these latter objectives should be included in the FIDCR nutrition requirement.

- Although controversy surrounds the USDA-Required Daily Allowances (RDA), they are the only nutritional guidelines available at this time. Several nutritional experts have recommended that the current criteria used for group feeding programs, such as in school settings, could be used in childcare programs. These criteria could specify the appropriate fraction of RDA to be provided children based on the length of time the child is in care and the age of the child. For a child in care full-time, for example, some State day care standards currently specify that one-half to two-thirds of the RDA should be provided during that daily period. Some of these nutritional experts recommend that the RDA should be adjusted upward when it is apparent that the child is not receiving adequate nutrition at home.

Underlying these recommendations, however, is the question of what the role of Federal requirements should be regarding the total nutritional well-being of children in care. For example, should a broader social services program be available to the parents of children who receive inadequate nutrition when they are not in the day care setting, to provide information about good nutrition, and to see that the families who lack money to buy food take advantage of the various food subsidy programs? This is an important consideration, since there is no evidence that a good nutritional diet received at the day care facility will balance out the deficient diet the child may receive elsewhere. Even if this were the case, the question would still remain: Should the day care provider have the responsibility of working with parents to improve nutritional practices at home?

Day care could provide an excellent medium for parental education on nutrition, as well as other health issues. Such a system exists in nutritional rehabilitation programs for children in some underdeveloped countries. In Bogota, Colombia, for example, parental nutritional education is a requisite part of the treatment program for children with malnutrition (Aronson and Pizzo, 1976). Given that 60 percent of FFP centers state they have their meals planned by a nutritionist, it would appear that, at least in those centers, there is a person who could assist caregivers in developing a nutrition education program for parents. In view of the current evidence that many family day care providers currently provide inadequate nutritional diets to children in their care, it does not seem likely that these caregivers could provide these broad nutritional information services to parents.

Information programs, technical assistance from funding agencies, and in service training are possible ways of helping family day care providers up grade their nutritional practices. For many family day care providers, additional funds may have to be provided to purchase adequate food. Family day care providers cannot participate in the Department of Agriculture food program unless they are nonprofit and are sponsored by an agency or organization. Even if sponsorship were not required, the paperwork alone for this program could overwhelm many small providers.

Finally, the FIDCR state that "consultation should be available from a qualified nutritionist or food service specialist." In view of the remote locations of some communities where day care facilities exist, implementation of this requirement may not always be feasible. Clearly, there would not always be professional dietary consultation available. Furthermore, the question of quality control of the professionals who provide the consultation has been raised by the panel of experts convened to prepare the FIDCR concept papers on "Health and Safety Issues in Day Care" (Aronson and Pizzo, 1976). This panel has recommended standardizing nutritional information for children in day care, taking into account geographic variation in food availability and cultural preferences. The American Dietary Association has done this for the school lunch program. Application of this recommendation to day care would require national coordination by nutrition and day care experts.

VI. HEALTH

PROVISIONS OF THE FIDCR

The present health care requirements cover two dimensions of the well-being of children in day care; 1) factors that directly affect the child while receiving day care (core), and 2) those that affect the child's well-being both inside and outside the day care facility (noncore). The core requirements are:

- Daily evaluation of each child for indication of illness,
- Staff awareness of how to minimize hazards of infection and accidents,
- Staff health checks, in particular for tuberculosis, 1/
- Arrangement for emergency medical care in advance of need, and
- Maintenance of health records.

The noncore health requirements call for:

- Arranging for periodic medical and dental examinations for the child,
- Helping parents plan and execute a program of medical and dental care for their children,

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1/ North Dakota has a law prohibiting routine annual TB exams in order to minimize exposure to unnecessary radiation.

- Providing educational programs and social services to help families carry out health plans.

THE HEALTH COMPONENT IN PRACTICE

National statistics indicate that poor children experience more handicapping conditions than children from middle class backgrounds and are at the same time less likely to receive medical attention. In families with an annual income of less than $2,000 only 15.7% of the children under seventeen visit a physician once a year. More than half the children in families with an annual income of $10,000 or more visit a physician once a year (Newberger, Newberger and Richmond, 1976).

Data on the role of day care in the delivery of health services is difficult to compare across studies. The delivery of services (e.g., services provided by the day care facility, referral to medical services, etc.) was operationalized in different ways in the separate surveys.

Two surveys suggest that the availability of medical services for children through day care centers is low.

The Westinghouse/Westat survey (1971), which is somewhat dated by now, reported that more than two-thirds of the day care operators interviewed indicated that none of the services included on a list of seven (physical exam, dental exams, vision tests, speech tests, hearing tests, psychological tests, and social work) were available.

The National Child Care Consumer Study (UNCO, 1975) gives a more recent indication of the kinds of services that are likely to be available to parents and children. In that study a national probability sample of families with children under 14 were asked to indicate whether referral services, immunizations and medical check-ups, psychological testing, and dental check-up were presently available to them through their child care arrangements. Less than ten percent of the respondents indicated that any of these services were available. It is possible that these low percentages reflect the fact that very casual users of day care were included in the UNCO sample. A reanalysis excluding casual users might reveal different results.

In contrast to the data presented above, more recent data from the National Day Care Supply Study, the National Day Care Cost Effect Study and the New York Infant Study indicate that day care centers are playing a more substantial role in the delivery of health services.

In the National Day Care Cost Effect Study (Phase II), all but five of the 64 centers observed supplied emergency medical services. Immunizations were provided or arranged for in 34 centers and 48 of the centers used specialists in developmental testing. Overall, immunization and preventive health services were more prevalent in centers that were federally funded and served lower SES populations. Variations in the health services offered in centers in different communities may reflect the availability of health services in the communities (Abt, 1977). Communities in which the availability of health services is limited may be more likely to have day care centers that offer comprehensive health services.

The results of the National Day Care Center Supply Study (1977), present a similar picture of the kinds of services available to children and parents. The directors of 1,750 centers in the sample (representing approximately ten percent of the centers in the 50 states and the District of Columbia) were asked to indicate whether physical examinations, dental examinations, hearing and speech testing, or psychological or developmental testing were provided to children. "Provided" was defined quite liberally to include "...anything from 'provided at and paid for by the center' to 'arrange(ing) visits for children at a local clinic.'" Almost 72% of the centers reported providing at least one of the services while 21% of them provided all four of the services. Physical exams and vision, speech and hearing tests were provided by 32% of the centers and 64% of the centers provided hearing, speech or vision testing. Dental exams were provided by 32% and 50% provided psychological or developmental testing. The percentage of FFP centers offering these services was even higher (see table below). Finally, 91% of the center directors said that their centers were in compliance with the FIDCR with regard to requiring physical exams at the time of the child's enrollment.

Unfortunately, no data are available from the supply study on the utilization of health services provided by day care facilities or on what percentage of children receive medical attention after referrals are made. Only

TABLE xx. Services Provided to Children by Type of Center

	(Percentage of Centers)						
	Non-FFP Centers		FFP Centers				
			Non-waiverable		Waiverable		
Services Provided	Profit	Non-Profit	Profit	Non-Profit	Profit	Non-Profit	All Centers
Physical examinations	12.7	28.2	26.8	59.8	16.1	27.0	32.2
Dental examinations	10.7	28.1	25.6	61.6	10.8	25.2	31.8
Hearing, speech or vision testing	46.6	61.7	59.5	83.9	61.3	69.4	63.8
Psychological or developmental testing	31.9	44.8	49.4	73.5	32.3	61.3	49.9
Frequent Patterns							
All of the four services	4.1	18.3	13.6	45.7	5.4	16.2	21.2
Hearing, speech or vision test and psychological or developmental testing	15.1	14.6	20.1	11.6	18.3	20.7	14.6
Hearing, speech or vision test only	16.9	14.6	13.0	5.6	26.9	14.4	13.0
None of the four services	43.8	32.7	28.4	9.8	33.3	20.7	28.5

one study exists which sheds some light on this. In the survey of Title XX centers in Tennessee done by Project Outreach, 2/ 2,000 children were screened for speech and hearing abnormalities. Of those children who were identified as having a problem requiring professional attention, only 52% were actually referred to a doctor. Although Title XX centers are supposed to be able to refer clients to health resources many do not. The reasons are many; for example, some of the centers in the Tennessee sample did not know how to get third party payments. Project Outreach plans to spend 1979 examining the adequacy of follow-up practices in Title XX centers in Tennessee.

The New York Infant Day Care Study (1978) found that infant day care programs in centers were vastly superior to family day care programs in terms of nutrition, health care, and physical safety. Children in center day care were provided with more positive nutritional food during the noon meal and snacks, while children in family day care were provided with more negative nutritional food (i.e., junk food and food unsuitable for infants, such as luncheon meats, soft drinks, potato chips, sweet desserts, etc). The center day care programs were also significantly better than the family day care programs in the provision of adequate immunizations, the day care agencies' knowledge of medical problems (including the frequency of pediatric examinations), and follow-up on medical problems which had been reported. The difference in the quality of health care provided to children in the two types of infant day care programs can be seen most clearly in the adequacy of children's immunizations. When children first entered the program, 86% of the center day care children and 68% of the family day care children were properly immunized. However, by three years of age, after the children had been in the program for several years, the day care health records indicated that 84% of the center day care children and only 29% of the family day care children were properly immunized!

There were also a significantly higher number of physical safety hazards in family day care homes than in

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2/ Project Outreach is funded by the Bureau of Education for the Handicapped, HEW.

day care centers. While structural differences between the center and family infant day care programs may have played a role, the study attributed these findings largely to the New York City Health Department's role in the center programs. The NYC Health Department licenses all group day care centers in New York City, while funded family day care homes are approved under regulations by the New York State Department of Social Services.

All of the infant center day care programs are required by the NYC Health Department to maintain comprehensive, up-to-date health records on each child, including a record of immunizations and medical problems. Part-time nurses, paid by the Agency for Child Development, are responsible for maintaining these records. This requirement provides the Health Department with considerable leverage over the Infant Center programs. In considering the programs' applications for license renewal, which is required every year, the quality of the health care provided and the completeness of the medical records were taken into account. The Agency for Child Development does not supervise the nutrition, health care, and physical safety aspects of the family day care programs to the extent that the Health Department supervises these aspects of the infant center day care programs. The Health Department, for example, requires that licensed day care centers regularly submit menus to be scrutinized for their nutritional value for infants, whereas the quality of the food provided to babies in family day care is largely the responsibility of each individual provider-mother. The Health Department also provides direct pediatric care or closely supervises the health care of children in the licensed infant center day care programs, whereas each family day care home makes its own arrangements for children's health care or leaves this responsibility to the child's family. Such arrangements do not guarantee that children in family day care will be provided with proper nutrition or health care. There is no documentation available that compares the improvements in the health status of children who attend day care facilities with the variations in the health services offered.

A longitudinal study is now in the planning stages in ACYF to evaluate the Head Start health component. This study will provide information on utilization rates and the impact of comprehensive health services on the health status and physical development of the children enrolled.

EVIDENCE REGARDING THE APPROPRIATENESS OF A HEALTH REQUIREMENT

Few specific data are available on the health status of children in Title XX day care programs. However, data from the National Center for Health and Vital Statistics, a Government Accounting Office (GAO) study on mental retardation, a report from the HEW Office of Health Affairs, a survey of Head Start children and the New York City Infant Study all suggest that a considerable portion of children eligible for Title XX day care, as well as those in Title XX day care, are at risk with regard to their health status.

- In Tennessee, a statewide survey of Title XX day care facilities screened 1,575 children for speech, language, and hearing impairments (81 percent of the children were between three and six years of age). The same standardized instruments were used that were employed in a four-State survey of Head Start children the year before. The findings, which were similar to those of Head Start, indicated that 11 percent of the children in Title XX day care had speech and language impairments and nine percent had hearing impairments.

- Head Start screening in four Southeastern States found that speech problems are the most prevalent handicapping condition among Head Start children (eight percent had significant expressive disorders). Of nearly 21,000 children, more than ten percent failed the speech and language screening conducted in 1975-76. (A follow-up study found that, upon referral, 84 percent of the children who failed the screening were cinfirmed to have clinically significant problems that required the services of speech and hearing professionals.) Communication problems if not identified early can seriously jeopardize a child's development and educational progress. 3/

3/ These findings are from the Language Development Programs, Bill Wilkerson Hearing and Speech Center, Nashville, Tenn.

- In a population of 1.2 million Head Start children, dental caries were common (40 to 90 percent of the children, depending on whether water was fluoridated). Thirty-four percent of these children had not seen a doctor in two years and many (25 percent) had not seen a dentist before enrolling in Head Start. Half the children did not have immunization for DPT, polio, and smallpox and over 20% had iron deficiency anemia. (Clinical Pediatrics, 1967.)

- Birth-related traumas, complications during the prenatal period, and low birth weight are more prevalent among low socioeconomic populations, as indicated by data from the National Center for Health and Vital Statistics. These conditions are linked to mental retardation, which often goes undiagnosed (GAO, 1977).

- A report from the Office of Health Affairs, Office of the Assistant Secretary for Health, HEW (A Proposal for New Federal Leadership in Child and Maternal Health Care in the U.S., 1977), indicates that children in families with an income of less than $3,000 are reported to be in "poor or fair" health 4.2 times more often than children in families with an income of $15,000 or more. In addition, the reported "incidences of impetigo, gastrointestinal diseases, parasitic diseases, urinary tract infections, lead paint poisoning, insect and rodent bites, and diseases due in many instances to impure water, inadequate sanitation, and inferior housing were higher in poor rural and ghetto children."

The New York City Infant Day Care Study (1978) was a large scale, longitudinal, comparative field study of 31 publically and privately funded center and family home infant day care programs licensed in New York City. Over 400 children were studied at time of entry into day care, again at 18 months of age and finally at 36 months of age. The mean gross annual rate of income for their families was $7,238. Thus most of the families were within the $9,400 net income limit permitted for four-person families to be eligible for public day care services in New York City in 1975 (the year the study began). In fact 71% of the families in the study were completely self-supporting before they entered the program compared to 63% of all families using public day care services in New York City. Although this indicates a higher portion of self supporting families than would be expected in Title XX day care, the findings in the health portion of this study should shed some light on the health status of the child population served by Title XX.

Approximately 40 percent of the children in this study had histories of low birth weight or birth complications. This finding was not unexpected, since all possible abnormalities of pregnancy, delivery, and post-natal course were included. Thus even time-limited and very minor abnormalities in the birth histories were coded. Approximately three percent of the children in the study had low birth weights (i.e., below 5 lbs.) which is somewhat less than expected for this population. During 1973 when some of the children in the study were born, four percent White, eight percent Black and five percent Puerto Rican births in New York City were under 5 lbs. 4/ In regard to the 40 percent incidence of birth complications of the children in the study, this is somewhat lower than the incidence reported by Pasmanick et al. (1956) in their famous Baltimore study on a similar population.

The overall abnormality rates for the children in this study ranged from 28 to 35 percent, which compares favorably with the incidence of medical problems reported for similar children who were not in an infant day care program. Jacobziner et al. reported in 1963 that 39 percent of approximately 23,000 preschool children had one or more medical abnormalities on routine physical examination. His population was drawn from Child Health Stations in New York City, which tend to serve low-income families similar to those in the Infant Day Care Study. The Cornell Welfare Medical Care Project in 1970 reported that the initial health assessments of their children from birth to 18 years of age, revealed a 60 percent abnormality rate!

The hematological findings in the NYC Infant Day Care Study can be summarized briefly. Most children were found to be normal and only a four percent incidence of anemia

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4/ Some extrapolation was required, since our 5 lbs. (2250 gm.) cut-off falls between the 2,000-2,500 gm classification traditionally used. We assumed that 2/3 of the births in the group would be 2,250-2,500 gms. and 1/3 would be 2,000-2,250 gms.

was reported. In 1968 Lanzkowsky conducted a study of anemia in 417 children, from six to 36 months of age, in 40 New York City Child Health Stations. The highest incidence of anemia (hgb of 10 gms. or less) found in that study was 14 percent in children 12 months of age. Informal surveys of laboratory reports of hematocrit levels in a single large Child Health Station in New York City showed an eight percent incidence of anemia in 1973 and again in 1975. The relatively low incidence of anemia cases in the NYC Infant Day Care sample may be due to: (1) the routine use of iron fortified vitamins for infants in Child Health Stations since 1970; and (2) the availability of iron fortified formula and foods to infants and pregnant women since 1974 under the federally funded WIC program.

Screening for hemoglobin abnormalities, including sickle cell, revealed an abnormaltiy rate of about five percent for the children in the NYC Infant Study, which is what one would expect in a sample of children who were about 60 percent Black. A recent evaluation of newborn screening in New York City, which is mandated by law, revealed about a nine percent incidence of hemoglobin abnormalities in Black infants in 1975-1976.

Lead screening also indicated that relatively few sample children (under three percent) had elevated or slightly elevated lead levels. Comparable figures from the New York City Health Department's lead screening program of 70,000 children found a six percent incidence of elevated lead levels.

In summary, the children in the New York City Infant Day Care Study sample were similar in terms of physical health to low-income children who were not in an infant day care program.

The three 18-month samples in the NYC Infant Study did not differ significantly on any of our physical health or growth measures, either initially or at 18 months of age. The three 36-month samples differed significantly in several respects.

A significantly higher proportion of 36-month Longitudinal Center Day Care children had normal birth histories than Longitudinal Family Day Care children. Since the 18-month samples did not differ in the incidence of birth problems, the difference in the 36-month samples may be due to the fact that more children with birth problems dropped out of center than family day care between 18 and 36 months of age. It is possible that more children with birth problems were withdrawn from center than family day care for health reasons, such as excessive acute illness. On the other hand, the finding may be fortuitous. Further research is necessary to find out whether the drop-out rates for children with birth problems differ in the two types of day care programs and if so, why?

The important point to keep in mind, however, is that the center children and family day care children did not differ significantly in physical health or growth at any time.

IMPLICATIONS FOR REGULATION

Although the present standards address all the areas of concern regarding the child's health, both inside and outside the day care facility, problems seem to arise in their implementation. This may be attributable, in large part, to the fact that the FIDCR are not clear about who has the ultimate responsibility for insuring that the health requirements are met. The periodic screening of children for dental, medical, and other health problems, for example, is required but not clearly delegated. Responsibility for most of the health requirements is currently delegated among parents, providers, and administering agencies. The administering agency appears to have ultimate responsibility for seeing that the child receives health care; some agencies may have no more access to a health care system for certain children than their families do, however. If, for example, a family's earnings exceed the level of eligibility for subsidized health care, it is not clear how an agency can acquire health services for the child or who should pay for these services. 5/ Moreover, family day care home providers who are not linked to a day care network or administering agency may not be able (or know how) to meet this requirement.

5/ Some Title XX funds are used in some States for health screening of Title XX day care children.

Implementation of the present requirements is dependent on caregivers having the skills necessary to meet them. For example, the daily evaluation of each child for indications of illness should be done informally and systematically by the caregivers in conjunction with the parents. However, caregivers need some health training to enable them to do this. In addition, they need periodic technical assistance to enable them to care for sick children, minimize health and safety hazards in the facility, and carry out their roles as health advocates in general (Aronson and Pizzo, 1976). The requirements also specify that health records should be maintained. One evaluation project in Pennsylvania found that health record keeping in day care centers increased from 25 to 50 percent after caregivers received training that included a health component (Aronson and Pizzo, 1976).

The present requirements state that the child must receive dental, medical, and other health evaluation upon entering day care and subsequently at intervals appropriate to his or her age and state of health. It is not clear, however, whether "upon entering" means prior to entering. (The concept paper prepared by Aronson and Pizzo states that this examination should not be a prerequisite for entry.) It is also not clear how this should be certified. Is the parent's word sufficient? And a related question is: Should health services be forced on parents who do not want them for their children?

As indicated by the findings of the NDCS Cost-Effects Study (Phase II), variations exist in the health services offered by day care centers in different communities. These variations may reflect the availability of health services in the communities. Communities in which health services are limited may be more likely to have day care centers that offer comprehensive health services. (Abt, NDCS Cost-Effects Study, 1977). Two questions must be asked: Can all centers in areas with limited health services afford to offer these comprehensive health services? And, what level of responsibility for health care can be expected of the family day care home provider?

It is unclear whether the FIDCR should continue to regulate those components of health care that do not relate specifically to the child's health status while in a care facility. Many individuals involved with day care argue that the cost of noncore components is too great.

Even where another agency or program provides the funding for the health services, the day care facility is often not reimbursed for the cost of coordinating the activity. Other individuals argue that this comprehensive health service is essential for a certain percentage of Title XX children who have not been, and in all probability will not be, picked up by any health delivery system unless the day care facility serves as the screening mechanism to refer them to a program. The evidence clearly indicates that some children in Title XX day care are at risk and that many of these children have not been identified by existing health care systems. If the total well-being of the child were to become the goal of day care policy, the health standards as written -- both core components and noncore components -- would appear to be necessary for a portion of the Title XX child care population.

VII. PARENT INVOLVEMENT

PROVISIONS OF THE FIDCR

The FIDCR mandate that parents be provided the following opportunities for involvement in federally funded day care programs:

(1) Opportunities to participate in the program and observe their children in the day care facility (program participation role).

(2) Opportunities to become involved in decisions concerning the nature and operation of the day care facility (decision making role).

(3) Opportunities to participate in the selection of a policy advisory committee and to serve on the committee when an agency provides day care for 40 or more children (advisory role). The committee membership should include not less than 50 percent parents or parent representatives, elected by the parents in a democratic fashion. Other members should include representatives of professional organizations or individuals who have particular knowledge or skills in child and family programs.

DEFINITION OF THE ISSUE

Given the absence of data establishing the impact that particular types of day care have on children, parents must rely solely on their personal judgment to select the most appropriate day care facilities for their children. In addition, given the limitations of any governmental effort to monitor day care facilities regularly, it is important that parents monitor the quality of the facilities and the care provided their children. It is believed that parents should "...be educated to provide them with a basis for evaluating the programs in which their children are involved and applying pressure to maintain standards or improve the programs" (Leon Yarrow, communication by letter, 1977). One way to achieve this is to encourage parents to be involved in all facets of day care activity (Bronfenbrenner et al, 1976).

Protecting the right of parents to have a voice in the care their children receive is particularly important with regard to federally funded day care. Unlike more affluent day care consumers, parents who cannot afford to pay the full cost of day care themselves and must rely on government funded programs may not have had a voice in the selection of their child's day care facility.

The requirement to provide opportunities for parent involvement in decision making was based, in large part, on the philosophy of Head Start, i.e., that involvement in decision making enhances the parent's sense of personal effectiveness and self-confidence. This greater self-assurance, it is hoped, will lead to greater knowledge about community resources and opportunities and ultimately to the family's becoming active community members.

THE PARENT INVOLVEMENT COMPONENT IN PRACTICE 1/

The Merrill-Palmer Institute Study of Parent-Caregiver Interactions in Centers (1977) and the NDCS Cost-Effects Study (Abt, 1977) found that about 25 percent of parents whose children are enrolled in centers -- do not involve themselves in any way with the center -- not even to communicate with the staff about their child. It must be noted that Title XX day dare parents often have limited time for involvement in their child's day care. One survey of Title XX day care families (NIAS,

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1/ Most of the data presented reflects parent involvement in center care only. Data on parent involvement in family home day care will be included in the National Family Day Care Home Study (in progress).

1977) found that 50 percent of the heads of households were working full-time, 10 percent part-time, and 15 percent were in school full-time. In addition, approximately four out of five of these households were headed by a single parent. Thus, the majority of Title XX parents are either working or in school and do not have another adult present in the home to share the child rearing responsibility.

Parent Participation in Policy Activities

The data available on parent involvement in day care generally indicate relatively low levels of parent participation in such activities as policy planning and budget review.

- Data from the NDCS Cost-Effects Study (Abt, 1977) show that approximately two-thirds of the parents who visited centers in which their children were enrolled came to confer with center staff about their children, to observe their children, to attend social events or to participate in educational activities offered for parents.
- The study showed that few parents were employed at the center (1 percent) or had a major role in decisions concerning the center (1 percent). Although many parents wanted more involvement, virtually none were interested in an increased role in decision making; instead, they voiced a desire to observe their children, to attend center social activities, to work as aides, or to participate more actively in educational activities.
- The National Childcare Consumer Study (Unco, 1975) 2/ found that 21 percent of the parents

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2/ This study provides information on parent preferences for (not actual) participation in childcare. The respondents included casual users of childcare (babysitting) as well as those who use substantial amounts of day care. Thus, many respondents were only speculating about their child's day care setting.

would like to participate in the selection of staff in day care centers, nursery schools, or homes employing more than one staff person.

It is important to note that only a minority of the parents desires involvement in policy making at their children's center. Most directors, too, favor a limited role for parents in policy making, although they do want more parent involvement in program activities.

- In the NDCS Infant Day Care Study, 80 percent (43 of 54) of the directors interviewed indicated they would like more parent involvement in some portion of center activities. Most (65 percent) felt that parents should take a greater interest in the center program, should initiate contact with center staff more frequently, and should make themselves more aware of their children's daily activities. A number of directors (23 percent) felt that parents should attend periodic meetings at the center. Only one director felt that parents ought to be more involved in the setting of policy or the operation of the center.

Parent Participation in Educational Activities

Although parent involvement is limited when it comes to participation in budget review and policy making in the day care facility, data from the NDCS Cost-Effects Study indicate that 23 percent of the parents took advantage of the educational opportunities offered by the center through workshops, training sessions, and parent education courses. The National Childcare Consumer Study (Unco, 1975) revealed that 52 percent of the parents who responded wanted to learn more effective ways of raising children. This group included parents who used formal child care arrangements as well as those who used no child care at all. With such interest expressed, it is not surprising that as many as 23 percent of the parents who found such information available (through their child's day care centers) took advantage of the workshops offered (Abt, 1977).

Parent Communication with Providers

In the area of communication (between parents and providers) there is high parent involvement.

- The NDCS Infant Day Care Study (Abt, 1977) interviewed 190 parents of infants and toddlers using center care and found that 81% reported communicating with caregivers daily while picking up or dropping off their child. Interviews with 212 parents using center care in Detroit also showed high numbers of parents (over two-thirds) communicating consistently (one or more times a week) with caregivers, usually when children enter and leave the center (Powell, 1977). This latter study found, however, that the majority of parents (70 percent) did not communicate consistently with a particular staff member. It is often the case in center care that the caregiver who works with the child all day leaves before the parents pick up the child.

Findings from the Merrill-Palmer Institute Study of Parent-Caregiver Interactions in Centers (1977) show that:

- Parents are about evenly split in their satisfaction with the current level of parent-caregiver communication, while caregivers and directors are proportionately more dissatisfied.
- While most parents and caregivers view goals and expectations as appropriate topics for discussion, considerably fewer parents and caregivers believe parents should make suggestions regarding caregiver practices.
- Although most parents perceive of center staff as being willing to discuss the children's activities at the center, few caregivers perceive of parents as being willing to discuss the home environment.

Additional findings on parent preferences from the National Childcare Consumer Study show that:

- 87 percent of the parents would like to talk to caregivers about their children's activities and development.

- 60 percent would like to spend time in the day care setting.
- 31 percent would like to work as volunteers.
- 16 percent would like to work as paid staff.

EVIDENCE REGARDING THE APPROPRIATENESS OF A PARENT INVOLVEMENT REQUIREMENT

Underlying the objectives of each element of the parent involvement component is the belief that children enrolled in day care will benefit from their parents' participation in the day care program. It is thought that benefits will accrue to the children from improvement in day care programs and/or from changes in parental behavior resulting from parent involvement.

Perhaps the most important reason for involving parents in day care is to reinforce their parental roles. There is a growing awareness among observers of day care that when parents place their children in the hands of "professionals" for several hours each day there may be a tendency to shift some of their parental responsibilities to others. Some do so inadvertently; other pressures on them being great, it is one less responsibility to shoulder if they feel their child is in good hands. Others back away from their role as parents because they view the caregiver as a professional who knows more about how to rear a child than they (this appears to be especially true of center care consumers).

- Bronfenbrenner, in his review (1976) of certain center and home-based intervention projects, stresses the importance of encouraging mother and child interactions around a common activity in order to produce cognitive child gains. The effectiveness of this aspect of parent involvement diminishes in terms of measurable child gains, however, when it is combined with a preschool program. Evidence indicates that under these circumstances parents turn over the responsibility of teaching their children to those with "professional capability."

Many parents underestimate the significance of their role in their child's development. A growing number of individuals in this category are young teenagers who, though barely out of childhood themselves, have children of their own. These factors indicate that sensitive, skilled caregivers should work with parents whenever possible.

By becoming actively involved in day care, parents can help provide continuity between the care the child receives in the facility and the care received at home. This is particularly important for infants in day care, because disruption in care at this developmental stage can be stressful (Fein, 1976). The care the family provides can reinforce learning from a good quality day care program. In those instances where the care provided by the family is poor, however, the effects of a good quality day care program can be undermined. Family circumstances, attitudes, and behavior powerfully influence the outcome of day care (Heinicke et al, 1974; Hess, 1969; Bronfenbrenner, 1970; Rowe et al, 1972; Schaefer and Aaronson, 1972; White et al, 1973; Emlen et al, 1972). A variety of demonstrations have shown that interventions designed to strengthen parental functioning affect day care outcomes for the child in center care (Heinicke, et al, 1974), family day care (Gray, 1970), and home care (Levenstein, 1970).

Parent involvement, both overt and covert, and in its many forms, is an integral component of the day care environment (Hoffman, 1971). Schaefer (1970) emphasizes that parents are the primary educational institution. To assess adequately the impact of a particular day care environment on a child one must know the nature of the relationship between the child and his family. Day care must always be considered in the context of the family; the interaction between the two cannot be ignored.

Parents as Learners

The family is the main socializing agent of the child. It is important not to lose sight of this fact. The individuals who worked on the 1968 FIDCR were sensitive to this because of their prior involvement with Head Start, which recognized the importance of the parent caregiving role. From its inception Head Start has operated on the premise that the parents, as well as the child, needed developmental assistance if they were to support their child's growth. This thinking was tacitly reflected in the FIDCR requirement which stated that "opportunities must be provided parents at times convenient to them to work with the program and, whenever possible, observe their children in the day care facility." The unspoken objective of this requirement was to involve parents in their child's day care, thereby providing a learning experience which would result in improved parenting and continuity of care between home and facility.

This objective was based on two assumptions:

1) All parents using subsidized care need this exposure to "exemplary" caregiving to improve their parenting, and

2) Sporadic work with the program and observation are sufficient exposure to new ideas and caregiving behavior to influence parenting behavior.

- The Standard Research Institute (1973) review of parent participation literature states that parents who are involved in learning roles often show increases in self-esteem and internal locus of control (the sense that one's life is determined by one's self rather than by external forces) (Rotter, 1966). Further studies by MIDCO Educational Associates (1972) and Boger and Andrews (1975) have found clear and consistent evidence that benefits, such as self-esteem, autonomy from adults, and peer interactions, accrue to the child whose parent is involved in the day care program as either a learner (MIDCO; Boger and Andrews) or a decision maker (MIDCO).

- Wittes and Radin (1969) found a significant corelation between the length of a parent's exposure to certain types of learning experiences (lectures versus activity-focused meetings) and the intensity of the parent's involvement. In their discussion, Wittes and Radin state that a process of evolution takes place during the course of low-income parents' involvement in their children's Head Start experience, and suggest that initial activity-focused parent meetings eventually should

> give way to sessions emphasizing instruction/discussion. Heinicke's findings support this suggestion (Heinicke and Strassman, 1976).

There is a widely held assumption that all low-income families need rehabilitation. In November 1977, however, F. Rich Heber made a systematic survey of the Milwaukee, Wisconsin neighborhood with the lowest median income and the greatest number of children (relative to population size) identified in school as educable mentally retarded. This survey produced substantial evidence that this is a misconception. Herber's data show that the families which produced the majority of these children were a sub-population of the larger low-income group. The mothers and a majority of the fathers in these families had IQ's below 75. In addition, very few of these families had sought the services provided for the retarded by community, social or rehabilitation organizations. It is significant for an evaluation of the parent involvement component to note that only a subgroup of low-income families are actually "high risk," and that there is evidence that parents who most need support to improve their child rearing skills are probably the least likely to be able to manipulate the social services system in order to avail themselves of rehabilitation benefits.

Although little is known about the characteristics of parents in the Title XX day care population, it is known that approximately four out of five Title XX households are headed by a single parent. More than 50 percent of the household heads work or are in school. Title XX day care services are available to a broad range of income categories not just the very poor. It can be presumed that a majority of the Title XX parents are functioning effectively and do not fall into the sub-population which Heber identified as most in need of remedial help. One reason for this presumption is that these families have been able to avail themselves of the social services due them, approximately half have jobs and only a minority are from the very lowest income category. For the majority of all parents what is needed, and apparently wanted, is a knowledge delivery system that is adult focused and provides parents with information they can use to enhance their child rearing capabilities. As mentioned earlier 52 percent of the parents surveyed by the National Consumer Study (Unco, 1975) wanted to learn more effective ways of raising children.

> "We must emerge from the past narrow compensatory focus and predicate the need for parent education, not on parental deficits, but on creating an organized mechanism for disseminating new and relevant knowledge to parents to enable them to cope with the stresses and complexities of raising children in a rapidly changing technological society. Thus many parents, irrespective of income level, educational attainment find themselves increasingly in need of a childrearing knowledge delivery system." 3/

Day care facilities and skilled caregivers may be the base on which to build one viable delivery system for this information. In fact, many function in this capacity presently. This delivery system might also serve as a vehicle for delivering health care information.

It is both practical and popular to use day care facilities as a vehicle for offering educational workshops for parents, as well as other less structured methods of conveying child rearing information to them. Both the Merrill-Palmer Study and the National Day Care Study reveal that as many as one-half of the parents view the day care center as a source of valuable child rearing information. This receptiveness presents an ideal atmosphere in which to establish programs designed to involve these parents in a learning role.

A second assumption associated with the policy that proposes that low-income families need rehabilitation is that by simply exposing parents to good caregiving practices, a change will result in their caregiving behaviors which will benefit their children.

This assumption, regarding the degree and type of exposure to positive caregiving practices necessary to improve parenting behaviors, must be examined from the perspective of each of the two groups of parents mentioned above: 1) those who are functioning in a competent fashion with the major stress in their life being their present

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3/ Mary Robinson, Project Director, Parent Child Development Center Replication Experiment, ACYF, HEW. Position Paper, "Toward A Strategy for Parent Education," 1977.

low income situation, and 2) those who are not functioning in a competent fashion and are overwhelmed by a number of stress factors in addition to low income.

When research and demonstration projects--Parent-Child Development Centers (PCDC), Homestart, etc.--provided parents with rigorous training in caregiving skills and tutoring techniques for use with their children, significant gains were found in the social, emotional, and cognitive development of their children.

In all three PCDC's (Birmingham, New Orleans and Houston), program mothers had developed significantly enhanced ways of interacting with their children by the end of the program (child's age 36 months). Mothers who participated in the PCDC experiments were more accepting of their children, more sensitive to their social, emotional, and intellectual developmental needs, more affectionate, more inclined to praise their children, and better able to use appropriate control techniques. They also became more involved with their children in ways that support cognitive growth (e.g., active play, asking questions, providing books), used more complex language, and encouraged more verbalization. Training of parents has also been shown to result in more skillful use of community agencies to meet family and child needs. As a consequence, by 36 months, program children performed significantly better than non-program (control) children on a large variety of measures, particularly of intellectual development, including increased cognitive, language, conceptual, and abstraction skills. (Johnson et al, 1976; Lassiter et al, 1976; Blumenthal et al, 1976).

The PCDC evaluation also found, as expected, that changes in the mother were usually necessary before more positive child development would be seen. Additionally, it was found that program effects on mothers and children often occurred long before the end of the program--as early as the end of the child's first year in the program. The children were a year old at this time. It was found that the earlier maternal changes occurred, the earlier, stronger, and longer-lasting were the subsequent child effects.

Finally, the results showed that program effects on mothers and children persist beyond the end of the program, to at least 48 months of age (additional results for age 60 months gathered in the fall of 1977 are being analyzed.)

The remarkable consistency of results across all three PCDC sites was striking. While each PCDC shared a common set of general goals and assumptions, each had also developed very individual methods of program implementation. The populations served also varied: low-income Mexican-American families in Houston, inner-city Black families in New Orleans, and a biracial, low-income Black and White population in Birmingham. The average per capita income across all three sites was $963; average grade completed across all three sites was 10th. Perhaps more striking than any of the statistical results was the enthusiasm with which these low-income mothers participated in the PCDC programs, the mothers' intense committment to their children, and their willingness to spend several years developing skills to enhance their children's development.

It should be noted that the extensive training of these mothers was possible because they, unlike the majority of Title XX mothers, did not work. The PCDC mothers were carefully screened to eliminate those who had so many personal problems that they probably would not have been able to benefit from the training program. In addition, much social service support was given to these parents. For example, food stamps, improved housing, etc. were found for those who were eligible. It is questionable, however, whether training efforts less extensive than those of the PCDC experiments would have been equally effective for severely stressed Title XX families, much less for the high-risk sub-group identified by Heber. For those Title XX families who are functioning effectively, and are already alert to their child's needs, exposure to workshops and observation of their children in the care setting, as well as communication with the caregiver, will probably be all that is needed and desired.

Reviews of the parent training research literature by Mary Robinson (1977) who is the director of the Parent Child Development Center programs in HEW, and by Hess and Goodson (1976) reveal that those programs which have been rigorously evaluated and which proved most effective represent the most rigorous and carefully structured of the parent education efforts. In addition they are the most intensive. Of these programs, those that actually randomly assigned subjects to experimental and control groups tended to have more modest outcomes than those which used less rigorous assignment procedures and thus may have allowed self-selection factors to distort results. Therefore an intensive intervention effort appears to be needed to alter parenting behaviors.

There are, to be sure, some child development programs which have less intensive parent training components but do show change in parent-child interaction patterns. The explanation for this probably rests with the fact that the child initiates a more sophisticated feedback system and the parent responds. It is the child who has had the benefit of the more intensive intervention and shows significiant behavioral changes. The parents have been sensitized enough by the limited exposure to their children's program so that they view the child differently and respond to cues provided by the child, especially those related to increased verbalization (Heber and Gorber (1975).

Parents as Decision Makers

The effects of parent participation in decision making roles can only be extrapolated from research indirectly related to day care. As a general matter, low-income parents who participate in decision making functions have been found to have a greater sense of self-esteem, greater feelings of being successful and skilled, to participate in higher levels of activity in community affairs, and to have a higher achievement orientation than parents with less or no participation in decision making. The studies on which these findings are based, however, made no attempt to determine if parents exhibited these characteristics prior to their participation in these decision making functions. Thus, it is not possible to attribute the observed effects unequivocably to the parents' decision making role. High levels of parent involvement in decision making in Head Start programs, however, have been associated with changes in other community institutions.

IMPLICATIONS FOR REGULATION

The 1968 FIDCR delineated three major types of parent involvement--participatory, decision making, and advisory. In light of the generally low levels of parent participation that have been reported in day care, it would seem important to examine how opportunities for parent involvement can be altered and/or expanded to allow more frequent and meaningful contact between parents and caregivers. One integral element to consider is the limited amount of time Title XX parents can devote to their children's day care programs.

Communication is something parents, caregivers, and center directors all want to see increased. The data suggest, however, that an increase in communication may not by itself enhance the well-being of the child. The Merrill-Palmer Institute Study of Parent-Caregiver Interaction in Centers (Powell, 1977) found little agreement between parents and center day care providers as to preferable child rearing behavior even where communication was frequent. Wattenberg (1976) found that relationships between many parents and family day care providers are fraught with tension. Thus, resolving the differences that parents and caregivers may have with regard to child rearing attitudes and behavior may require efforts beyond simply increasing the frequency of communication. Most day care experts believe that staff training is needed to facilitate communication. It is clear that more research is required to identify other barriers to communication and to show how they can best be removed.

In addition, the question must be asked, how important is it for these differences in values, attitudes and child rearing styles to be resolved. Is there a particular combination of values, attitudes and caregiving styles which is the most beneficial to the development of children and therefore should be prescribed? Current practitioner literature and theoretical arguments suggest that it is undesirable for parents to put significant social distance between themselves and their children's care programs; conversely an interdependent relationship between parents and child care programs is the most conducive to child functioning. Clearly the interdependent relationship appears to coincide with presently popular notions of "parent-caregiver partnership" and "day care as a family support system."

From a child development perspective, there is presently no research dealing directly with the question of how important it is to achieve uniform child rearing methods. Studies are needed to determine the effect parent-caregiver relations have on a child's social experience in dealing with home-center transitions and possible discontinuities. The social worlds of many day care children are fragmented and discontinuous. Yet whether the child perceives and experiences the world in these terms is not known. It is not clear from existing research evidence how a disconnected family-day care facility relationship affects a child's behavior and development, as compared with a more cohesive relationship. What is the influence of system inconsistencies on children when considering age differences and degrees of discontinuity? The theoretical argument that socialization processes are improved when there is close coordination and communication between socialization agencies is in need of empirical investigation.

In a study of day care families in Pennsylvania (Meyers, 1973), parents were asked why they were not more involved in day care. Forty percent of the mothers who said they wished to participate also said that no opportunity to do so had been offered them. The rest indicated they had no time for further participation. (In this study, maternal employment status did not predict the level of participation in day care.) It remains to be considered how much effort should be required of facilities to involve these parents and whether or not Title XX funds should be used for this purpose.

Consideration also should be given to other dimensions of the participatory role. The present FIDCR, for example, do not include any references to parents as learners. Yet much of the research indicates that parent learning promotes better parent-child interactions and significant social, emotional, and cognitive child development gains. Further, approximately half of the parents interviewed in a national probability survey (Unco, 1975) indicated they wanted information about how to raise their children. A large number of parents from all income groups take advantage of parent training opportunities when they are offered. This would indicate the government should encourage the use of day care monies for this service.

The issue of parent involvement in policy making is difficult to resolve. To mandate a policy making role for parents and to specify that a certain percentage of parents must be involved in facilities of a certain size, as is now required in the FIDCR, could impose a heavy burden on facilities where parents are reluctant to become involved in sufficient numbers. On the other hand, administrative staffs in many facilities may resist parent involvement in making facility policy unless the door is opened by regulation to allow participation by those parents who want to become involved in the policy of their children's day care facility.

In light of the generally low levels of parent participation that have been reported in day care, it will be important to consider how the opportunities for parent involvement can be altered and/or expanded to allow more frequent and meaningful contact between parents and the caregivers directly involved with their children in day care programs.

The concept of "parent involvement" in child care programs needs greater specificity than the current literature and public policy provide. A good deal of the recent attention given to the relationship between parents and child care programs conceptualizes the parental role either at a political level, having concern for parents in program decision-making capacities, or at an educational level, where a programmatic aim is to alter parents' behaviors and/or attitudes toward their child. Yet if the day-to-day relations between parents and child care programs are at all important, then policies and practices must broaden present conceptualizations of parent-caregiver relations and transcend vague and general statements about the involvement of parents in child care programs.

Bibliography

NOTE:

The bibliography for this technical paper is presented in two sections. Any reference not found in the first section can be found in the second section.

The first section was developed as part of the report "The Appropriateness of the Federal Interagency Day Care Requirements..." which was transmitted to Congress in 1978.

The second section was developed by Mathematica Inc. as part of the analytical work they did to assist the Assistant Secretary's Office of Planning and Evaluation in developing the "Appropriateness Report".

Together, these two bibliographies constitute one of the most complete sets of references on the subject of child development related to day care.

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GLOSSARY OF TERMS 1/

ACYF

Administration for Children, Youth, and Families, an agency within the Office of Human Development Services, HEW.

ADMINISTERING AGENCY

The agency that receives Federal funds under Titles XX (Social Services), IV-A, IV-B (Child Welfare Services), and IV-A (WIN) for day care services and that has ultimate responsibility for the conduct of the day care services program. The administering agency may be the State Title XX public social service agency or the Child Welfare Services (Title IV-B) agency, if separate from the Title XX agency. The term "administering agency" may also refer, in some States, to the local public agencies authorized by law to administer the social services programs.

AFDC WORK EXPENSE DISREGARD

The deduction of certain work expenses, such as the cost of day care services, in the computation of a person's income for the purpose of determining AFDC benefits.

AGE OF ENTRY

Age at which a child enters a day care program.

AGE MIX

The age composition of a group of children in a day care setting.

AID TO FAMILIES WITH DEPENDENT CHILDREN (AFDC) PROGRAM

A Federal financial assistance program, authorized under Title IV-A of the Social Security Act. The AFDC program provides money to

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1/ This Glossary defines terms as they have been used in day care research or as they are commonly understood by the Department of Health Education and Welfare.

States, which provide services and distribute cash assistance to eligible needy families with dependent children, to cover costs of food, shelter, clothing, and other items. When the income of AFDC recipients is calculated in order to determine benefits, the cost of certain work-related expenses, including day care, may be deducted. See AFDC Work Expense Disregard.

APS

Administration for Public Services, an agency within the Office of Human Development Services, HEW.

CAREGIVER

A person who provides direct care to children in a day care setting. Caregivers include teachers and aides in day care center classrooms; family day care providers and aides; and providers of in-home day care.

CASP

See Comprehensive Annual Services Program Plan.

CDA

See Child Development Associate.

CERTIFICATION

State endorsement or approval of a day care facility or provider for compliance with Federal and/or State day care regulations.

CETA

See Comprehensive Employment and Training Act.

CFR

See Code of Federal Regulations.

CHILD CARE FOOD PROGRAM

A Federal program, administered by the Department of Agriculture, to assist States, through grants and other means, to initiate, maintain, or expand nonprofit food service programs for children in facilities providing childcare, including day care centers, family day care homes, and Head Start centers.

Glossary

CHILD DEVELOPMENT ASSOCIATE (CDA)

A person who has earned the early childhood education/child development credential awarded by the Child Development Associate Consortium. The CDA credential is a professional award that certifies that a "person is able to meet the specific needs of a group of children aged 3 to 5 in a child development setting by nurturing the children's physical, social, emotional, and intellectual growth, by establishing and maintaining a proper childcare environment, and by promoting good relations between parents and the child development center."

CHILD-STAFF RATIO

In a day care setting, the ratio of the number of children in a group to the number of caregivers assigned to the group. A high child-staff ratio (for example, 20:1) means that there are many children per caregiver in a group. A low child-staff ratio (5:1) means that there are relatively few children per caregiver in a group.

CHILD WELFARE SERVICES (CWS)

Public social services that supplement or substitute for parental care and supervision in order to prevent or remedy harm to children and to protect and promote the welfare of children. Child Welfare Services are authorized under Title IV-B of the Social Security Act. Among the services States provide under the program are foster care, protective services, health-related services, family counseling, homemaker services, child day care services, and emergency shelter services. Any child is eligible for services regardless of the social or economic status of the child or family.

CODE OF FEDERAL REGULATIONS (CFR)

Codification of the current general and permanent regulations of the various Federal agencies. The Federal Interagency Day Care Requirements are contained in part 71, subtitle A, of Title 45 (Public Welfare) of the Code of Federal Regulations.

COMPLIANCE

Conformity to regulations; behaving or operating in accordance with regulations.

Glossary

COMPONENT, DAY CARE

A major aspect or element of a day care services program; for example, a parent involvement component would comprise all the activities through which parents may be involved in the provision of day care.

COMPREHENSIVE ANNUAL SERVICES PROGRAM PLAN (CASP)

The State's annual services plan required under Section 2004 of the Social Security Act.

COMPREHENSIVE EDUCATION AND TRAINING ACT OF 1973 (CETA)

Federal legislation authorizing funds to State and local governments to provide job training and employment opportunities for economically disadvantaged, unemployed, and underemployed persons and to assure that training and other services lead to maximum employment opportunities. Day care services are offered as a support service to participants in CETA programs. CETA workers may be employed by nonprofit day care providers and may participate in on-the-job training at for-profit facilities.

COMPREHENSIVENESS

The breadth of coverage of day care standards, that is, the extent to which a set of standards contains different components of care.

CONTINUITY OF CARE

The stability of the caregiving situation and the consistency and balance of care between the home and the day care facility.

CORE COMPONENT

An element of day care services that is essential to the well-being of the child while in the day care setting. A noncore component is an element of day care services that affects the total well-being of the child, but is not essential to his or her immediate well-being in the day care setting.

CURRICULUM

A planned set of activities and materials carried out with a group of children in a day care setting, designed to achieve certain goals for children in care, such as age-appropriate social, emotional, physical, and cognitive growth.

Glossary

CWS

See Child Welfare Services.

DAY CARE

Care provided to a child inside or outside the child's home, by a person or persons other than a member of the child's immediate family, during some portion of a 24-hour day. Day care is usually associated with children whose parents work or carry out other productive tasks. However, components of day care, particularly for children 3 to 5 years of age, may have characteristics identical to preschool or nursery school programs.

DAY CARE, ALL-DAY OR FULL-DAY

Day care provided for more than 6 hours in 1 day.

DAY CARE, FULL-TIME

Care provided for 30 hours or more per week in periods of less than 24 hours per day. The HEW/APS FIDCR Monitoring Guide defines full-time care as care provided for 32 hours or more per week in periods of less than 24 hours per day.

DAY CARE, PART-TIME

Care provided for less than 30 hours per week in periods of less than 24 hours per day. The HEW/APS FIDCR Monitoring Guide defines part-time care as care provided for less than 32 hours per week in periods of less than 24 hours per day.

DAY CARE AIDE

A person who assists a lead or primary caregiver in the direct care of children in a day care setting.

DAY CARE CENTER

A facility in which care is provided part of a 24-hour day for a group of 13 or more children. The HEW/APS FIDCR Monitoring Guide defines a day care center as a licensed facility in which care is provided part of the day for a group of 12 or more children.

DAY CARE FACILITY

The place where day care is provided to children (e.g., a family day care home, a group day care home, or a day care center).

Glossary

DAY CARE PROVIDER

An individual, organization, or corporation that provides day care services for children.

DEVELOPMENTAL SERVICES

A component of day care services that comprises the program activities, materials, and staff qualifications necessary to support the cognitive, social, emotional, and physical development of children in care. This component is not now regulated by the Federal Interagency Day Care Requirements.

EARLY PERIODIC SCREENING, DIAGNOSIS, AND TREATMENT PROGRAM (EPSDT)

An element of the Medicaid program (authorized under Title XIX of the Social Security Act) that provides early screening and periodic diagnostic and testing services to children of AFDC recipients and other needy children for the purpose of detecting potentially crippling or disabling physical or mental health problems.

ELIGIBILITY FOR TITLE XX SOCIAL SERVICES

Persons eligible for social services, such as day care, provided under Title XX of the Social Security Act are: recipients of AFDC or Supplemental Security Income (SSI) programs, and, at State option, other persons who meet State and Federal income limitations. States may set income eligibility limits that do not exceed 115 percent of the State median income for a family of four, adjusted for family size. Any individual is eligible to receive the following services provided under Title XX without regard to income: family planning, information and referral, and any service directed at the goal of preventing or remedying neglect, abuse, or exploitation of children or adults unable to protect their own interests.

ENFORCEMENT MECHANISM

The process by which Federal, State, or local governments take action to compel observance of regulations.

FAMILY DAY CARE

Day care provided to a child in the home of another family or individual.

Glossary

FAMILY DAY CARE HOME

A private family home in which children receive day care during some part of a 24-hour day. The HEW/APS FIDCR Monitoring Guide defines a family day care home as a licensed or approved private family home in which children receive care, protection, and guidance during a part of the 24-hour day. A family day care home may serve no more than a total of six children (ages 3 through 14)—no more than five when the age range is infancy through 6—including the family day care mother's own children. Public Law 94-401 (1976) provides that States, in computing the number of children in a family day care home, need count only the children of the operator of the home who are under age 6.

FEDERAL INTERAGENCY DAY CARE REQUIREMENTS (FIDCR)

Federal regulations, issued in September 1968, that specify requirements that must be met in the provision of day care funded under certain Federal programs. In 1968, the FIDCR applied to day care under: Title IV-A and IV-B of the Social Security Act; Title I, Title II, Title II-B, and Title V of the Economic Opportunity Act; the Manpower Development and Training Act; and, at State option, under Title I of the Elementary and Secondary Education Act. (Many of these programs no longer exist.)

The Social Services Amendments of 1974 (Public Law 93-647), which established Title XX of the Social Security Act, incorporated a modified form of the FIDCR into Title XX as a purchasing requirement for day care funded under Title XX, Title IV-A (WIN), and Title IV-B programs.

The FIDCR are organized according to nine categories or components of day care services, as follows: Day Care Facilities (including types of facilities; grouping of children and child-staff ratios; and licensing or approval of facilities); Environmental Standards (location of day care facilities; safety and sanitation; suitability of facilities); Educational Services (educational opportunities, activities, and materials, supervision by trained or experienced staff member); Social Services (coordinated provision of social services, counseling and guidance to parents, assessment of child's adjustment in day care program); Health and Nutrition Services; Training of Staff; Parent Involvement; Administration and Coordination; and Evaluation.

FEE SCHEDULE

The rates charged by a day care provider to purchasers in full or partial compensation for services rendered. A fee schedule that varies—based on family income, family size, or age of the child in care—is used by many providers. A sliding fee schedule may be required of providers who serve children supported under Federal social services programs. Title XX requires that States impose fees reasonably related to income for services furnished to persons with incomes over 80 percent of the State's median income. States may impose fees for recipients and persons with incomes below the 80-percent level. In cases in which sliding fees are used, the social services agency in effect shares part of the cost of care with the child's family.

FEDERAL FINANCIAL PARTICIPATION (FFP)

A designation indicating that some or all of a facility's funds are Federal. Non-FFP care is purchased entirely with private funds. Most FFP facilities are required to meet the FIDCR; if they fail to do so, the Government is obligated to withhold reimbursement to the State for care purchased during the period when they were not in compliance.

FFP DAY CARE FACILITY

In this report, the term FFP facilities refers to facilities that receive funding under Title XX, IV-A (Social Services), IV-A (WIN) or IV-B programs.

FIDCR

See Federal Interagency Day Care Requirements.

FOLLOW-THROUGH

A Federal program, administered by the Office of Education of the Department of Health, Education, and Welfare, that offers specific programs of instruction, health, nutrition, and related services that aid in the continued development of elementary school children from low-income families who participated in Head Start and other qualified preschool programs.

FULL-TIME EQUIVALENT (FTE)

A term used in personnel management to denote the amount of time, effort, or cost expended in one full-time position.

Glossary

GAO

General Accounting Office.

GROUP DAY CARE HOME

An extended or modified, licensed or approved family residence in which family-like care is provided, usually to school-age children, and usually for up to 12 children.

GROUP SIZE

The number of children in a day care center classroom or cluster, or in a family day care home or group day care home. Maximum allowable group sizes for different forms of care are specified by State licensing standards and the Federal Interagency Day Care Requirements.

HEAD START

A Federal program that provides comprehensive health, education, nutrition, social, and other services primarily to economically disadvantaged preschool children and their families. The program emphasizes the importance of local community control and parent involvement in the activities of their preschool children.

INCOME TAX CREDIT FOR CHILD CARE EXPENSES

A credit against tax due for 20 percent of qualified child care expenses, up to a maximum of $2,000 in expenses for one dependent and $4,000 for two or more. The maximum credit is $400 for one dependent and $800 for two or more.

INFANTS

Children under 18 months of age.

INFORMATION AND REFERRAL SERVICES, DAY CARE

A resource that provides information to individuals about day care services available in the community. They usually provide the names, addresses, and phone numbers of several day care centers or family day care homes that would be convenient to the home or place of work of the family making the inquiry (Travis and Perreault, 1977).

IN-HOME DAY CARE

Care provided for a portion of the day in the child's home by a nonrelative or by a relative who is not a member of the child's immediate family.

IN-HOME DAY CARE

Care provided for a portion of the day in the child's home by a nonrelative or by a relative who is not a member of the child's immediate family.

INSERVICE TRAINING

Job-related learning activities for caregivers, including advice on and criticism of daily performance, on-the-job training, and formal or informal academic experience.

LICENSING

The granting by a State of a license, or permission to operate a day care facility, to a provider who has shown evidence of compliance with the State's licensing code, licensing standards, or minimum requirements for the license.

LICENSING CODE

Specified standards in State law that must be met before a license or permission to operate is granted by the State.

LICENSING STANDARDS

State-established standards that must be met before official approval to operate is granted or before a license to operate is issued.

MEDIAN FAMILY INCOME

The income level in a State that represents the level below which half of the incomes of households fall. The median income for a family of four (adjusted for family size) in each State and the District of Columbia is used to determine eligibility of individuals for Title XX services on the basis of income. See Eligibility for Title XX Social Services.

MINIMUM WAGE

The lowest wage per hour permitted by Federal law in industries governed by the Fair Labor Standards Act. The current minimum wage, $2.65 per hour, applies to day care center workers and in-home caregivers. It also applies to family day care homes when the caregiver is regarded as an employee.

MONITORING

The observance and overseeing of day care programs by a government agency responsible for enforcing applicable regulations.

MONITORING GUIDE, HEW/APS FIDCR

Publication of the Administration for Public Services that provides guidelines for use by State agencies in monitoring out-of-home child care facilities for the purpose of determining whether or not the facilities meet Federal and State standards.

MORATORIA ON FIDCR CHILD-STAFF RATIOS

Congressional amendments to Title XX of the Social Security Act that suspended or waived the FIDCR child-staff ratios under certain conditions:

- o Public Law 94-120, sec. 3 (Oct. 1975) suspended FIDCR Title XX child-staff ratios for children between the ages of 6 weeks and 6 years in day care centers and group day care homes if the staffing standards actually being applied (a) complied with applicable State law, (b) were no lower than corresponding standards imposed by State law on Sept. 15, 1975, and (c) were no lower than corresponding standards actually being applied in the centers or homes on Sept. 15, 1975. The suspension authorized by this law was in effect from October 1975 to February 1976.
- o Public Law 94-401, sec. 2 (Sept. 1976) extended the suspension of staffing standards allowed by Public Law 94-120 to Sept. 30, 1977.
- o Public Law 95-171, sec. 1(d) (Nov. 1977) extended suspension of the staffing standards to Sept. 30, 1978.

NDCS

National Day Care Study.

NONCORE COMPONENT

See Core Component.

Glossary

NONPROFIT DAY CARE

Day care provided by a public or private agency or organization not organized for profit.

NPRM

Notice of Proposed Rulemaking.

POVERTY LEVEL

The low-income level based on the Social Security Administration's poverty thresholds, adjusted annually in accordance with changes in the Consumer Price Index. Poverty levels reported by the Bureau of the Census, U.S. Department of Commerce, for 1976 and estimated figures for 1977 are:

	1976	1977 (estimated)
One person under age 65	$2,959	$3,150
Two persons, head of household under age 65	3,826	4,070
Three persons	4,540	4,830
Four persons	5,815	6,190

PPVT

Peabody Picture Vocabulary Test, a measure of a child's vocabulary and verbal skills.

PRESCHOOLERS

Children aged 3 years or older and under 6 years of age.

PRESERVICE TRAINING

Training and education acquired by a caregiver before entering the day care field.

PRIVATE-PAY DAY CARE

Day care supported by parent fees.

PROFESSIONALISM

In the National Day Care Study, professionalism was defined as the total years and type of formal education and child-related training and experience of a caregiver. It is often thought of in a broader context related to the performance capability of a caregiver as measured by professional standards (e.g., award of the Child Development Associate credential).

PROGRAM SIZE

The number of children enrolled in a day care facility.

PROPRIETARY DAY CARE

Day care provided on a for-profit basis by an individual or business concern.

PSI

Preschool Inventory, a test instrument of certain cognitive skills and knowledge of preschool children. The PSI is used to measure some aspects of school readiness.

PURCHASE-OF-SERVICE REQUIREMENTS

Requirements that specify the conditions under which the administering agency agrees to purchase services on behalf of Title XX, Title IV-A (Social Services to Guam, Puerto Rico, and the Virgin Islands), Title IV-A(WIN), or Title IV-B programs. The FIDCR and related administrative regulations in parts 200, 226, and 228 of Title 45 of the Code of Federal Regulations are the purchase-of-service requirements for day care services funded under the Social Security Act.

REGISTRATION

A process whereby a provider or potential provider makes known to the appropriate State or local agency his or her intent to engage in family day care. Registration may take several forms and may include the provider's certification of meeting appropriate State standards. Generally, HEW does not consider registration to be a form of licensure. Registration as a form of licensure is being used on experimented with in several States. The process differs somewhat from State to State. The term registration is sometimes used to refer to a simple listing of existing family day care homes compiled by an information and referral agency (Travis and Perreault, 1977).

REGULATIONS

Statement of a government agency of general or particular applicability and future effect, designed to implement, interpret, or prescribe law or policy, or describing the organization, procedure, or practice requirements of an agency. Federal regulations have the force of law and may include sanctions for noncompliance. The Federal Interagency Day Care Requirements are Federal regulations (codified in part 71 of Title 45 of the Code of Federal Regulations). They were developed to implement a congressional mandate issued in sec. 107(a) of Public Law 90-222 that the Secretary of Health, Education, and Welfare and the Director of the Office of Economic Opportunity "coordinate programs under their jurisdictions which provide day care, with a view to establishing, insofar as possible, a common set of program standards and regulations, and mechanisms for coordination at the State and local levels."

Regulations implementing Title XX of the Social Security Act are contained in part 228 of Title 45 of the Code of Federal Regulations. The day care requirements imposed by sec. 2002(a)(9)(A) of Title XX appear in part 228.42 and incorporate by reference the 1968 FIDCR, with some modifications, into the Title XX regulations.

REIMBURSEMENT RATES

The amounts by which a State will reimburse a day care provider for day care services purchased under a Federal program. Reimbursement rates are set by the States.

SANCTIONS

Actions taken by a Government agency to enforce regulations or to punish violation of them. Sanctions include (1) prohibition, requirement, limitation, or other condition affecting the freedom of a person; (2) withholding of funds; (3) imposition of a penalty or fine; and (4) charge of reimbursement, restitution, or compensation.

SCHOOL-AGE CHILDREN

Children aged 6 years or more and under 14.

SCHOOL-AGE-DAY CARE

Care provided to children of school age before or after school hours.

SMSA

Standard Metropolitan Statistical Area. This is a Federal Government designation of a geographical area that is an integrated economic and social unit with a large population.

SOCIAL SERVICES PROGRAM

A Federal program, authorized by Title XX of the Social Security Act, to enable States to provide social services to public assistance recipients and other low-income persons. The services must be directed to one of five legislative goals: (1) economic self-support; (2) personal self-sufficiency; (3) protection of children and handicapped adults from abuse, neglect, and exploitation; (4) prevention and reduction of inappropriate institutionalization; and (5) arrangement for appropriate institutionalization and services when in the best interest of the individual. Services offered by most States include day care, foster care, homemaker services, health-related services, and services to the mentally retarded and to drug and alcohol abusers. Many other services are also offered.

SSI

See Supplemental Security Income.

STAFF-CHILD RATIO

See Child-Staff Ratio.

STAFF TURNOVER RATE

The percentage of caregivers terminating employment at a facility over a given period of time. For example, in a day care center employing a total of five caregivers during a given year, the annual staff turnover rate for that year would be 40 percent if two caregivers terminated employment during the year.

STANDARDS

The word "standards" has many definitions in this report; the term is used in several of its generally accepted meanings: (1) a "rule or principle used as a basis for judgment"; (2) "an average or normal requirement, quality, quantity, level, grade, etc."; or (3) "a model, goal, or example to be followed" (Random House Dictionary, 1966, cited in Morgan, 1977).

STANDARDS (continued)

The Federal Interagency Day Care Requirements are Federal funding standards, containing specific requirements to be met as a condition of Federal funding or purchase of day care services. State licensing codes contain day care standards that specify the conditions that must be met before a license or permission to operate is granted. Funding standards and licensing standards can be enforced by the responsible Government agency through a variety of sanctions: withholding or withdrawal of Federal money, in the case of the FIDCR; and denial, suspension, or revocation of a license, in the case of State licensing standards. The Child Development Associate Consortium has established professional standards of competent child care, by which applicants for the CDA credential are judged.

Goal standards embody ideals or present models of day care program performance. Goal standards are not legal requirements and are not designed to be enforced.

STATE PLAN

A permanent administrative plan, in which the State designates the administering agency for Title XX services and pledges itself to meet the compliance requirements of section 2003 of the Social Security Act.

SUPPLEMENTAL SECURITY INCOME (SSI) PROGRAM

Federal program that provides supplemental income to indigent persons aged 65 and over or who are blind or disabled. States are required to provide at least three services for SSI recipients as part of their Title XX program.

TITLE IV-A, SOCIAL SECURITY ACT

See Aid to Families with Dependent Children and AFDC Work Expense Disregard.

TITLE IV-B, SOCIAL SECURITY ACT

See Child Welfare Services.

TITLE XX, SOCIAL SECURITY ACT

See Social Services Program.

TODDLERS

Children aged 18 months or more and under 36 months.

WAIVER

Suspension of the application of the Federal Interagency Day Care Requirements by HEW, as allowed by the FIDCR under certain conditions.

This term may also refer to the suspension of the FIDCR allowed by Public Law 94-401 (1976), which provides that States may waive staffing standards otherwise applicable to day care centers or group day care homes in which not more than 20 percent of the children in care (or, in a center, not more than five children in the center, whichever is less) are children whose care was being paid for under Title XX, if the facilities met applicable State staffing standards.

WISC

Weschler Intelligence Scale for Children. Test instrument, developed from the Weschler-Bellevue scale, that measures the intelligence of children with regard to performance under given conditions, not "native ability."

WORK INCENTIVE PROGRAM (WIN)

A Federal program designed to help recipients of AFDC become self-supporting by providing training, job placement, and employment opportunities, and related services. The WIN program is authorized under Title IV-C of the Social Security Act. Supportive services for WIN participants, authorized under Title IV-A of the Social Security Act, include day care services.

TODDLERS

Children aged 18 months or more and under 36 months.

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EXECUTIVE SUMMARY

Day care has become an increasingly important part of family life in the United States. Today, 11 million children under the age of 14 spend a substantial part of their week in childcare arrangements. How they spend their time in these formative years is a legitimate concern of the public and of public policy.

For 2.5 million infants and toddlers, enrollment in day care marks their first separation from their parents during years that are critical to their total development. For 3.7 million preschoolers, day care has the potential to expose them to beneficial experiences that will better prepare them for their first years in school. For slightly more than 4.9 million school-age children 13 and under, their experiences in day care before and after school may be intertwined with school activities. Children aged 10 to 13 are less likely than those in other age groups to be in day care because many parents consider them to be old enough to look after themselves when not in school.

The Federal Government—mostly the Department of Health, Education, and Welfare (HEW)—subsidized approximately $2.5 billion of childcare arrangements in 1976. In 1975, parents spent $6.3 billion for privately purchased day care.

As a Department concerned with the well-being of all children, HEW has a fundamental responsibility to assure that the children and parents assisted by its programs are well served and that day care funds entrusted to the Department are well spent. HEW has a special responsibility for young children who cannot protect their own interests.

Most of the day care arrangements financially assisted by HEW funds are regulated by the Federal Interagency Day Care Requirements (FIDCR), which are published Federal regulations authorized by Congress. The FIDCR were promulgated in 1968; in 1975, the FIDCR were modified and incorporated into Title XX of the Social Security Act.

In 1975, Congress also mandated the Secretary of HEW to evaluate the appropriateness of the day care requirement imposed by Title XX. This report responds to that mandate. It concludes that:

- Federal regulation of federally supported day care is appropriate.
- The FIDCR can be rewritten, based on 10 years of experience, to improve their ability to protect and enhance the well-being of children.

This report is the result of 3 years of extensive study by HEW of research in the field of day care; of 21 state-of-the-art papers specially commissioned for this project; and of comments from practitioners, parents, administrators, and other parties interested in day care.

As this report was being completed, the Secretary of HEW announced that the Department was beginning the process of revising the FIDCR. Details of this process are described in Chapter 5.

CHAPTER 1

A PERSPECTIVE ON THE FIDCR AND DAY CARE

The largest single Federal day care program is carried out by HEW under Title XX of the Social Security Act. In 1976, about one-third of federally supported day care was provided under Title XX, underwriting care for more than 600,000 children.

The planned Title XX day care expenditures remained relatively constant in fiscal years 1976 ($759 million), 1977 ($742 million), and 1978 ($772 million), even though Congress enacted supplemental appropriations of $200 million above the ceiling in both 1977 and 1978 to help States meet the requirements imposed by the FIDCR. Many States, however, decided not to increase day care expenditures.

THE VARIETIES OF DAY CARE

There are three types of day care: in-home (provided in the child's own home); family (provided in the caregiver's home); and center (provided in a center serving more than 12 children).

Providers of each type vary widely in background, experience, and expertise. They range from grandmothers and other close relatives to homemakers with children of their own to small business entrepreneurs to professionals with graduate degrees in child development. Their duties are the same, however: to protect the child from physical harm, to feed the child and minister to the child's health needs, to set disciplinary limits for the child, and to nurture the child in his or her development.

This study concludes that appropriateness must be evaluated in terms of what the FIDCR are intended to accomplish. This study concludes that, although the principal purpose of day care is to help parents to work and to achieve self-support, the principal purpose of the FIDCR is to facilitate the appropriate social, emotional, physical, and cognitive growth of children in Title XX day care.

Chapter 2 of this report examines research, expert opinion, and consensus of practical experience on the effects of the FIDCR components on reducing risk of harm and on promoting the well-being of children in care. Chapter 3 presents estimates of what certain FIDCR provisions cost. Chapter 4 analyzes the efforts by the Federal and State governments to implement the FIDCR. Drawing on the data presented in the earlier chapters, Chapter 5 discusses the kinds of policy choices confronting the Department and presents preliminary findings and conclusions, recommendations, and HEW's plans for developing new FIDCR.

CHAPTER 2
IMPACT OF THE FIDCR ON CHILDREN IN DAY CARE

The FIDCR cannot be tested with laboratory precision because they lack clarity and specificity, and are not uniformly in operation in the field. But their appropriateness can be assessed, based on experience and available research. The basic criterion for assessment is the effect of the regulations on the well-being of the children in care. Chapter 2 discusses the FIDCR components and assesses them in terms of that criterion.

GROUPING OF CHILDREN

Child-staff ratio and group size are the regulatable aspects of day care that are most directly related to the amount and nature of personal attention that caregivers can give children. Evidence shows that small groups of children and caregivers best promote competent child development. Group size should vary according to the ages of the children in care and whether there are children, such as the handicapped, with special needs. Small groups are especially important for children under age 3.

Low child-staff ratios and small group sizes may in themselves guarantee very little about the quality of care children receive, because they interact with other components of day care—such as caregiver competence. Any revision to the FIDCR should take this interrelatedness into account.

Important natural variation in group size and child-staff ratios occurs in a center or family day care home during the day and throughout the year. This variation must be accommodated by any administrative regulations.

CAREGIVER QUALIFICATIONS

Limited research data exist on the differential effects of various types of education, credentials, experience, and inservice training on caregiver behavior. Research data and expert opinion reveal, however, that (1) specific caregiving skills are needed to support the well-being of the child, (2) training can be used to promote these skills, and (3) training is essential to refine or improve current caregiver performance in all modes of care.

EDUCATIONAL OR DEVELOPMENTAL SERVICES

Educational (or developmental) services should lay the groundwork for continued cognitive, social, emotional, and physical development. This can best be achieved by clearly defined program objectives, quality caregiving, and age-appropriate materials. This is important for all children, regardless of age.

Data indicate a disproportionate prevalence of developmental risk among children of low-income families. Over time, that risk impairs their ability to thrive. The optional nature of, as well as the broader developmental goals intended by, this component must be clarified and refined.

ENVIRONMENTAL STANDARDS

There is no assurance that State and local safety and sanitation codes adequately protect the well-being of the child in the day care environment. Many codes were written for facilities other than day care, and these codes do not cover the safety of play equipment.

The type of space is not the only important aspect of environment. Also important are play materials and privacy.

HEALTH SERVICES

A considerable portion of children in Title XX day care are at risk with regard to their health. The present standards address all the areas of concern regarding the child's health status both within and outside the day care setting, but there are problems associated with their implementation. Day care providers can more reasonably be expected to be responsible for quality control and preventive functions for health problems than to deliver health care services.

NUTRITIONAL SERVICES

It is important to provide children with nutritious meals and snacks in day care to help insure that their overall diets are nutritionally sound. As many as a third of the children currently eligible for federally funded day care are likely to be at risk in terms of inadequate caloric intake and vitamin deficiencies. Many family day care providers lack a basic understanding of good nutrition and resources to provide adequate nutritional services to the children they serve.

PARENT INVOLVEMENT

Underlying the Parent Involvement component is the belief that children in day care will benefit from the participation of their parents in the program. The data available on parent involvement in day care generally indicate relatively low levels of parent participation in such activities as policy planning and budget review. Educational workshops that provide childrearing information appear to be popular among parents. Several research and demonstration projects show that when parents receive rigorous training in caregiving skills and tutoring techniques, their children show significant social, emotional, and cognitive developmental gains. Parents become more sensitive to their children's needs and interact with their children in cognitively appropriate ways.

SOCIAL SERVICES

This FIDCR component impacts only indirectly on the child in care. It is nonetheless important because many childcare experts believe no short-term intervention program can succeed in supporting the competent development of a child whose family is overwhelmed by its socioeconomic plight or other problems. Most parents want referral services that will help them select appropriate day care for their child. This need is largely unmet across the country. As with the Health Services component, the emphasis of this component should be on information and referral to other social services.

ASPECTS OF DAY CARE NOT ADDRESSED BY THE FIDCR

Chapter 2 also examines four aspects of day care not currently regulated by the FIDCR.

Continuity of Care

A great deal of research describes the negative effects on children of all ages—and especially on young children—of caregiver instability and inconsistency in caregiving environments. Continuity of care apparently is not enhanced by current regulatory/administrative practices. Although evidence suggests that this variable could not be easily regulated, the impact of Title XX policies—including the FIDCR—on continuity of care should be considered in developing new FIDCR.

Age of Entry into Day Care

There are no data that specify the earliest age at which a child can be separated from the primary caregiver (usually the mother) for an extended period each day without suffering negative developmental consequences. There is insufficient evidence to suggest that this component should be regulated.

Hours in Care

Parents who seek childcare arrangements because of employment probably think of the hours of service more in terms of their own needs than of the impact on their children. The impact of hours in care on child well-being has not been adequately assessed to suggest if this variable should or can be regulated.

Program Size

Data on the relationship between program size and quality of care are meager, but the results suggest that the bigger the program, the bigger the problems. Some of these problems, which include negative interaction patterns between teachers and children and high levels of staff turnover, are indicators of poor quality care. Many problems of size can be overcome by proper management. At present, however, the evidence is insufficient to justify regulating this variable.

CHAPTER 3
COST IMPLICATIONS OF THE FIDCR

Three major questions concerning the cost of the FIDCR are:

- o Does meeting the FIDCR raise costs significantly above those of private-pay care?

- o What is the cost of bringing all Federal financial participation (FFP) day care facilities into compliance with the FIDCR? (FFP facilities are those receiving Federal funds.)

- o How much do the comprehensive services now provided in FFP care add to its cost?

The chapter addresses FIDCR related costs for the three major types of childcare: center, family, and in-home. Centers receive the most emphasis because they are more likely than other facilities to be federally supported and because more is known about center care than the other two.

FIDCR COSTS FOR DAY CARE CENTERS

The FIDCR are minimum requirements that States must enforce to receive Federal funds for childcare. The additional cost of care that results from meeting those requirements might be measured in several ways. This report uses cost estimates of the minimum compliance effort, based on a reasonable reading of the Monitoring Guide of the Administration for Public Services. States and providers may choose to go beyond the minimum requirements, of course.

Of all nine FIDCR requirements, only that regulating child-staff ratios permits a specific numerical estimate of the additional expenses of meeting that requirement. However, technical and definitional problems make even these estimates subject to significant differences in interpretation.

Using the National Day Care Study - Supply Study data and a relatively lenient method of measuring compliance, it would appear that meeting the ratio requirement would increase the average cost of care per child an estimated $19 a month or $227 a year compared to non-FFP centers. This means that FFP children in centers meeting the FIDCR will receive care that is significantly more expensive than that purchased by parents in centers serving only private pay children. Moreover, it is likely that the majority of the non-FFP centers could not meet the cost of the FIDCR child-staff ratio requirement and continue to serve private-pay children unless some subsidy were available for all the children in their care.

It appears that meeting the non-staffing requirements of FIDCR, using the minimum compliance interpretation, adds little to the resources generally offered by private day care or already mandated by most State licensing standards.

A 1976-77 survey estimated that 5,500 more full-time caregivers were needed nationwide to bring into compliance the FFP centers not meeting FIDCR child-staff ratio requirements. Estimates of the total cost to hire those caregivers range from $33 million to $44 million a year, depending on the wages and fringe benefits offered.

Many FFP centers complying with the FIDCR have staff beyond what the regulations require. The 1976-77 survey estimated 12,400 such staff. To the extent that any of the 12,400 staff now employed in excess of the FIDCR requirement could be reduced through attrition or shifted to noncomplying centers through transfer, the net cost of meeting the staff ratio requirements would be reduced. Transfers would be most practical in centers operated by school districts or other governmental units (about 10 percent of all centers). Each thousand extra full-time equivalent staff reassigned or eliminated results in an annual reduction of $6 million to $8 million in salary costs.

Finally, nonprofit FFP centers often provide comprehensive services (e.g., meals, transportation, and social services) that appear to go beyond those required by the minimum interpretation of the FIDCR and beyond the services offered by for-profit FFP providers. These extra services, lower child-staff ratios, and higher wages push the total average monthly cost per child up to $190. That is $70 more than in nonprofit centers serving only private fee-paying parents, and considerably more than low- or middle-income families are likely to pay without Government financial assistance.

The higher cost of care in FFP centers is only one factor—but an important factor—in explaining why FFP children in day care tend to be separated from those in non-FFP care. At present, 40 percent of nonprofit, nonwaiverable centers serve only FFP children. Another 20 percent serve between 75 and 99 percent FFP children. It is likely that roughly 50 percent of FFP children in centers are in exclusively FFP facilities. Enforcing the FIDCR would probably result in some increase in the separation of the FFP and non-FFP children.

Of course, other factors lead to separation of FFP and non-FFP children. Examples of such factors are a center's location and State and local Title XX agency policies (e.g., New York City contracts with organizations to provide care exclusively for FFP children).

FIDCR COSTS FOR FAMILY DAY CARE

More than 5 million children are cared for in homes other than their own for at least 10 hours a week. In contrast to the center market, federally funded care is a small fraction of total family day care; only about 140,000 children received FFP family care for the fourth quarter of fiscal year 1976.

According to the FIDCR, FFP family facilities must be licensed. The individual licensing and Title XX policies of each State determine in large measure the impact of the FIDCR on family day care. For example, State policies determine whether relatives and friends can be certified to care for a Title XX child.

A section-by-section analysis of the FIDCR shows that none of the key family day care provisions (e.g., on the number of children in a home, training, licensing, monitoring, etc.) necessarily mean that reimbursement per FFP child would be substantially above the average fees charged for private-pay care. However, some State and local policies lead to substantial costs for training, support services, licensing, and monitoring.

IN-HOME CARE AND THE FIDCR

Nineteen percent of FFP children are served by in-home care. Little is known about its cost and characteristics. Until much more is known about wage rates and other aspects of in-home care, the additional costs (and benefits) of support services and training for these providers cannot be determined.

CHAPTER 4
ADMINISTRATION OF THE FIDCR

There are vertical and horizontal layers of regulation affecting day care programs. Vertically, the Federal, State, and local governments regulate day care. Horizontally, several Federal departments and agencies are involved and the States and localities also have several regulatory bureaucracies concerned with day care.

The administrative issues surrounding the FIDCR include:

- The relationship of the FIDCR to State licensing standards.
- The record of the Federal Government in developing, implementing, and enforcing the FIDCR.
- The ability of the States to administer the regulations.

STATE STANDARDS

State licensing standards prescribe minimum standards of performance that must be met by all State day care programs to operate legally.

It is difficult to compare State standards with the FIDCR because of the lack of research data on the State standards and because State standards often include local code requirements. States also differ in respect to what components of a day care program they regulate and in how they apply the standards.

State standards for center programs come the closest to regulating the same day care components as the FIDCR. Almost all States regulate child-staff ratios and the environmental, administrative, health and safety, and educational aspects of day care center programs. They are less unanimous in including requirements for staff qualifications and staff training and regulating group size. On the whole, States do not support establishing licensing requirements for social services, parent involvement, and program evaluation.

For family day care, both the FIDCR and State standards establish child-staff ratios, and facility, health, and safety requirements, but other areas of the FIDCR have little similarity with State standards. However, for five States, standards apply only to federally funded programs.

Only 20 States have any requirements for in-home care. FIDCR do not include standards for in-home care, relying on States to develop this type of regulation.

The fact that a State standard addresses requirements for the same components as the FIDCR does not speak to either the adequacy or specificity of that standard. States do not always regulate the same aspects of a particular component, and it is frequently difficult to determine if the elements being regulated are comparable in importance.

In conclusion, although State licensing standards have become more stringent in the past 10 years, the evidence indicates that these standards still do not insure a minimum level of program performance when judged by their comprehensiveness.

FEDERAL IMPLEMENTATION

The problems the Federal Government has experienced in designing and implementing a Federal day care regulatory policy are not unique. Many of the difficulties are inherent in any regulatory process. This report examines the FIDCR within the broader context of the state of the art of Federal regulation. The implementation of the FIDCR can be assessed in terms of six basic factors that influence the success or failure of Federal regulation in general.

Clarity of Goals of Regulation

There has been confusion since the drafting of the 1968 FIDCR as to what they are intended to accomplish. This confusion has existed despite the clear regulatory nature of the FIDCR. The regulatory goals are unclear with respect to the purpose of the FIDCR, the degree of compliance required, and whether the FIDCR are consistent with the goals of Title XX.

Clarity of Language

The language of the FIDCR and the lack of supporting materials have have made the application of critical FIDCR components a difficult task.

Public Involvement

The public affected by the FIDCR—day care consumers, providers, and State administrators—did not participate in the development of the FIDCR and is not informed that it has a role to play in the regulatory process.

Regulatory Climate

The Federal Government has not shown strong leadership in building and maintaining a consensus of support for the FIDCR.

Conflict of Loyalties

The process of implementing regulations can create conflicts of loyalty among those responsible for insuring that the goals of the regulations are carried out. In the case of the FIDCR, these conflicts can occur when State officials are responsible both for for providing a day care service and for terminating a major source of funds if day care programs do not meet the FIDCR. Conflicts can also occur when State licensing personnel play the dual role of consultant and program monitor. A related problem can occur when the regulator is also the purchaser of the day care service. A shortage of available day care can influence the judgments made about the adequacy of the existing resources.

Enforcement Policies

Generally, the Federal Government has shown little commitment to enforcing the FIDCR, or to imposing penalties for noncompliance.

STATE IMPLEMENTATION

The States have encountered difficulties in administering and enforcing the FIDCR because the regulations are vague and ambiguous in specifying what administrative tasks are required.

It is difficult to determine the success or failure of States in insuring program compliance because of the lack of reliable data. Available evidence indicates that, in States judged to be successful, agency staff spent a significant amount of time with the day care provider, agency staff developed technical assistance and guidance materials, and the program operated in a climate that supported the implementation of the regulations.

Objective evidence cannot determine whether States should continue to assume the responsibility for administering and enforcing the FIDCR. At the hearings held to review a draft of this report, there was no support for having Federal monitors take over current State roles. What appears to be clear is that there is a recognized need to have HEW support State efforts to implement Federal day care requirements.

CHAPTER 5
SUMMARY, RECOMMENDATIONS, AND NEXT STEPS

Congress has taken the view that day care is an important part of the lives of millions of children and, if federally supported, should be regulated. HEW agrees.

In developing the new FIDCR, HEW will face difficult choices in balancing competing values. The decisions made will reflect in part a view of the proper scope of Federal intervention and in part the strength of the evidence justifying the intervention.

THE NEED FOR MAKING DIFFICULT CHOICES

Perhaps the most fundamental aspect of a regulatory scheme is the inevitability of trade offs, the necessity of choosing between competing values or goals. Resolving these dilemmas requires sacrificing some of one objective to obtain some of another. Some of the choices that must be made concern the comprehensiveness of the FIDCR, their extensiveness, their specificity, and sanctions for noncompliance.

Comprehensiveness

The spectrum of possible coverage of the new FIDCR ranges from quite narrow, extending to only one or a few of the current components, to quite comprehensive, including all of those now covered plus others. Comprehensiveness also affects differently the various kinds of care that are regulated—center care, family care, or in-home care.

Extensiveness

For each aspect of care covered by the FIDCR, it is possible to prescribe standards that are more or less extensive or stringent. For example, the Environmental component of the FIDCR could prescribe standards designed to insure only the most minimal elements of physical safety or protection against abuse or emotional harm. At the other end of the spectrum, the requirement could attempt to insure an environment that will guarantee a wide variety of experiences designed to promote every aspect of a child's social, emotional, physical, and cognitive growth.

Specificity

No matter how comprehensive or narrow, requirements can be drafted with varying degrees of specificity. Many of the existing FIDCR are general.

Sanctions for Noncompliance

For any given requirement, it is possible to impose a broad range of sanctions. The possibility of graduated sanctions is already receiving serious HEW attention. Compliance systems could provide early warnings, consultation, training, or other assistance and time-phased graduated goals for providers who are conscientiously seeking compliance.

ALTERNATIVE MODELS FOR THE NEW FIDCR

The decisions that are made concerning the comprehensiveness, extensiveness and specificity of the new FIDCR and sanctions for noncompliance will not resolve all the important questions. Perhaps the most important issue that will remain is the extent to which the Federal Government will rely on States to prescribe the content of specific requirements and to enforce them.

In general, three models of Federal-State relationships in this area continue to surface in discussion of the FIDCR:

- The first model relies heavily upon States to define the specific content of requirements, to upgrade their standards, and to administer and enforce them.
- A second model would entail a more directive Federal role. Under this model, the Federal Government would establish minimal Federal requirements for a few critical components (e.g., group size) that appear to be important to the well-being of children in day care.
- A third model would involve the most extensive Federal role. The Federal Government would draft comprehensive and specific day care requirements, applicable to both the State and to the day care provider.

FINDINGS AND CONCLUSIONS

Purpose

The purpose of the FIDCR is to define a set of day care characteristics that protect and enhance the well-being of children enrolled in federally funded day care programs. For most children in federally funded day care—children without special physical, cognitive, or social problems—insuring well-being means providing the elements of care that are needed to nurture the growth of any healthy child. Children with special problems need individual assessment and provision of care over and above those required by all children.

Scope of Application

By law, the FIDCR apply to some but not all federally funded programs. In practice, they apply to some but not all types of day care. For example, the FIDCR apply to Title XX-funded care and, in some situations, to the Department of Agriculture's Child Care Food Program. They do not apply to the Head Start program (which has its own standards that individually equal or exceed the FIDCR), to AFDC-funded care, or to CETA-funded programs.

If the FIDCR represent the basic elements that the Federal Government believes are necessary for the well-being of children in some forms of federally funded day care, and if one of the basic purposes of the FIDCR was to bring uniformity to Federal childcare requirements, logic would indicate that the FIDCR should apply whenever the Federal Government subsidizes day care. This belief was expressed repeatedly during the public meetings to review the draft of this report.

It appears, however, that some situations may call for additional requirements to meet the needs of a special category of children. Head Start, for example, may require additional standards to fulfill its objectives of compensatory education. Furthermore, new legislation would be required for the FIDCR to apply to all federally funded day care.

As amended by Title XX, the FIDCR relate to family and group home day care and center care. Title XX also requires that in-home care meet standards set by the States. In practice, however, these requirements have not been uniformly applied to in-home and family day care.

The FIDCR are not simply Federal regulations for providers of care; they also apply to administrative agencies. Unfortunately the FIDCR are often unclear as to the division of responsibilities. New regulations must distinguish among the administrative entities and affix clear responsibilities for specific administrative functions.

Content

In regard to the appropriateness of the FIDCR, this study recommends the refocusing of some of the requirements, the elimination of several elements within individual FIDCR, and the consideration of the new FIDCR promoting continuity of care.

Grouping of Children. Findings on the importance of group size suggest that this factor should receive more relative emphasis in the regulations. This shift does not necessarily mean that ratio should be omitted from future regulations but rather that group size should be regarded as the principal regulatory tool for assuring adequate interaction, and that ratio will be influenced or determined by the group size requirement.

Caregiver Qualifications. The current FIDCR do not include a separate component for caregiver qualifications although elements of this subject are addressed briefly in several of the other components.

It appears to be important to differentiate between supervisory personnel and caregiving staff because the skills needed by these two groups differ. Supervisors need budgetary and management skills, in addition to child development skills. The revision process should consider the advisability of separate requirements for center directors, lead teachers, or directors of family day care home networks.

Research data and expert opinion clearly show that specialization in child development areas improves the ability of caregivers to promote child growth and development. Although inservice training of caregivers could be broadly regulated, such regulation should not cover the extent and type of training.

The present FIDCR, as well as HEW policy, recommend that "... priority in employment be given to welfare recipients ... and other low-income people." To insure the well-being of children, the new FIDCR should require that welfare recipients hired to work in a day care program possess adequate skills, ability, and motivation to work with children, consistent with other entry-level caregiver qualifications.

Educational or Developmental Services. HEW believes that developmental activities constitute a core component in day care. All children need developmental experiences whether at home or in day care. Experts believe that there should be clearly defined developmental goals and program objectives for children in day care facilities. Sufficient age-appropriate learning and play materials are also important. The success of this component depends on qualified caregivers and program supervisors. Goals and objectives also serve to inform the parent about the program and to support caregiver behavior. Developmental activities should be an integral part of the day care experience.

Environmental Standards. This is a core element that assures the physical well-being of children while in care. The current FIDCR reference local codes in this area. However, local codes are often contradictory and sometimes inappropriate to day care. Local codes also often focus on building safety but not on the safety of toys, playground materials, etc. HEW should use technical assistance to help State and local governments to upgrade their codes to make them more appropriate for protection of children in day care.

Health Services. All children need health services whether they are in day care or at home. It is essential for the well-being of children that both center and family care homes serve a "quality control" function in maintaining the health of the children in their care.

Nutrition Services. The provision of nutritious meals is a core element necessary for the well-being of a child in care. The current FIDCR do not describe how many meals or snacks must be served nor what criteria should be used to determine nutritional quality. Many experts recommend that standards be developed.

Parent Involvement. The present FIDCR stress parent involvement in policymaking in group facilities. Although parent involvement in policymaking should be encouraged, the emphasis should be on open two-way communication between parents and providers.

Social Services. In general, the Social Services component should serve a "quality control" function. The day care agency or facility can be a link with social services agencies for severely disturbed or disadvantaged families. The agency and facility should also provide information and referral for parents requesting it.

Administration and Coordination, and Evaluation. These two components are combined in this discussion. For the most part they apply to the administering agency, not to the provider.

The new FIDCR should completely separate requirements for administering agencies from requirements for the various modes of care. Furthermore, the FIDCR administrative requirements should be combined with the other Title XX requirements that specifically relate to the administration of day care.

The Evaluation component also contains provisions for the provider to do periodic self-evaluations. Organizational self-assessment such as this should continue to be encouraged. The extent of the self-assessment will have to be tailored to the size and nature of the day care provider. The major emphasis on evaluation should be to provide assistance and technical support, and should be placed on the States rather than providers.

Continuity of Care: A Non-FIDCR Component. Continuity cannot be easily mandated. Qualified caregivers cannot be forced to remain in their jobs and parents cannot be required to keep their children in one care arrangement. However, agency placement practices could be reexamined, reimbursement rates improved, and sliding fee schedules promoted to reduce unnecessary shifts in arrangements. Enforcement of regulations should be sensitive to the impact of abrupt changes in group size or personnel on the continuity of care for the particular children involved.

Implementation and Administration

It is extremely important for HEW to work to create a supportive climate for the FIDCR. HEW must be sensitive to the different interest groups concerned with day care regulation and work to establish and maintain public—parent, taxpayer, provider, legislator, and administrator—support.

RECOMMENDATIONS

The FIDCR should be revised to improve their ability to protect the well-being of children in center care, family care, and in-home care and to assure consistent and equitable interpretation. The revision should:

- Reflect current research and expert judgment on elements critical to the well-being of children in care.
- Clarify roles and responsibilities of providers and State and local administrators.
- Educate as well as regulate. This can be done by writing the regulations in clear language, by clearly distinguishing between legal requirements and recommendations, by giving examples of satisfactory compliance, and by defining a common terminology.
- Provide separate and unique requirements for:
  - Different forms of care: in-home, family home, group home, and center care.
  - Children of different ages in care.
  - Children with special needs or handicaps.
  - Different administering agencies.
- Accommodate the rich diversity in childcare needs and arrangements which exist in our pluralistic society.
- Include participation of all interested individuals in the process of writing and implementing the new regulations.

To minimize disruption in the day care field, the Department also recommends that Congress extend the current moratorium on the FIDCR until the Department publishes final day care regulations.

In addition, the FIDCR revision process may lead HEW to propose legislation addressing:

- A clarification of the congressional intent about the goals of federally regulated day care.
- Desirability of one set of Federal regulations to apply to all federally funded day care.
- Repeal of statutory provisions that require that particular Federal day care programs conform to the 1968 FIDCR.
- Desirability of a wider range of sanctions than now exists for noncompliance with the FIDCR.
- Desirability of additional funds for training for caregivers.

NEXT STEPS FOR THE DEPARTMENT

In order to stimulate public participation in the development of the new FIDCR, the Department will undertake two major activities:

- Nationwide dissemination of this report for public review and comment.
- Discussions between HEW central and regional staff and State officials about administrative considerations.

By the end of the summer of 1978, the Department should have received congressional and public comment on the FIDCR appropriateness report as well as the results of major research now underway. HEW should then be in a position to make decisions on the division of responsibilities between the Federal and State governments. With those decisions made, the Department intends to draft the proposed revised FIDCR for public comment. This approach carries out the Secretary's plan to obtain as many public and professional opinions on the FIDCR as possible before publishing proposed as well as final revisions.

Later in the year, the sequence of events for publication is expected to be as follows:

- Briefings in Washington, D. C., and at regional meetings and workshops in all the States.

- Publication of a Notice of Proposed Rulemaking (NPRM) in the Federal Register.
- Nationwide dissemination of the NPRM through mailings and through placement in publications of organizations concerned with day care. HEW will seek to use innovative methods of dissemination of the NPRM.
- Formal hearings on the NPRM in Washington, D. C., and on a regional basis.
- Field briefings of representatives of the day care community about the proposed regulations.

When HEW has fully considered all public and professional views on the proposed new FIDCR, it will publish the final revised regulations in the Federal Register.

APPENDIX B

TEXT OF THE FIDCR

FEDERAL INTERAGENCY DAY CARE REQUIREMENTS

PURSUANT TO SEC. 522 (d)
OF THE ECONOMIC OPPORTUNITY ACT

* * *

as approved by
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
U.S. OFFICE OF ECONOMIC OPPORTUNITY
U.S. DEPARTMENT OF LABOR
September 23, 1968

DHEW Publication No. (OHDS) 78-31081

NOTE:

The Federal Interagency Day Care Requirements, when applied in relation to use of Title XX, Social Security Act, funds, have been amended as follows:

(1) Page 6, Part I.B.3., Child/staff ratios for children under 3 years and for school age children receiving care in day care centers:

Age	Ratio
Under 6 weeks	1:1
6 weeks to 3 years	1:4
School age 6-10 years	1:15
School age 10-14 years	1:20

(2) Page 9, Part III, Educational Services are no longer requirements, but are recommended.

DISCRIMINATION PROHIBITED--Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color, or national origin, be denied the benefit of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Therefore, the programs covered in this publication must be operated in compliance with this law.

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PREFACE

Day care is a service for the child, the family, and the community and is based on the demonstrated needs of children and their families. It depends for its efficacy on the commitment, the skill, and the spirit with which it is provided.

Day care services supplement parental care by providing for the care and protection of children who must be outside of their own homes for a substantial portion of a 24-hour day. These services may be provided when parents are employed, are in training programs, or, for other reasons, need these services for their children.

Day care services should be developed and carried out as part of a comprehensive community plan designed to promote and maintain a stable family environment for children. Day care can serve most effectively and appropriately as a supplement to care in the child's own family when other services support family care, such as homemaker service. Only then can the plan of care for a child be based on what is best for him and his particular family. Communities planning coordinated child care programs need to develop a wide range of services, including, but not limited to, day care services.

DEFINITIONS

DAY CARE SERVICES -- comprehensive and coordinated sets of activities providing direct care and protection of infants, preschool and school-age children outside of their own homes during a portion of a 24-hour day.[1] Comprehensive services include, but are not limited to, educational, social, health, and nutritional services and parent participation. Such services require provision of supporting activities including administration, coordination, admissions, training, and evaluation.

ADMINISTERING AGENCY -- any agency which either directly or indirectly receives Federal funds for day care services subject to the Federal Interagency Day Care Standards and which has ultimate responsibility for the conduct of such a program. Administering agencies may receive Federal funds through a State agency or directly from the Federal Government. There may be more than one administering agency in a single community.

OPERATING AGENCY -- an agency directly providing day care services with funding from an administering agency. In some cases, the administering and operating agencies may be the same, e.g., public welfare departments or community action agencies which directly operate programs. Portions of the required services may be performed by the administering agency.

DAY CARE FACILITY -- the place where day care services are provided to children, e.g., family day care homes, group day care homes, and day care centers. Facilities do not necessarily provide the full range of day care services. Certain services may be provided by the administering or operating agency.

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[1] The Office of Economic Opportunity uses 7 hours as the minimum time period for its preschool day care programs; however, most of the Standards in this document are also applicable to part-day Head Start programs.

STANDARDS -- Standards consist of both Interagency Requirements and Recommendations. The Requirements only are presented in this document; the Recommendations will be issued separately.

Interagency Requirements -- a mandatory policy which is applicable to all programs and facilities funded in whole or in part through Federal appropriations.

Interagency Recommendations -- an optional policy based on what is known or generally held to be valid for child growth and development which is recommended by the Federal agencies and which administering agencies should strive to achieve.

FEDERAL INTERAGENCY DAY CARE REQUIREMENTS

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INTRODUCTION

The legislative mandates of the Economic Opportunity Amendments of 1967 require that the Secretary of Health, Education, and Welfare and the Director of the Office of Economic Opportunity coordinate programs under their jurisdictions which provide day care so as to obtain, if possible, a common set of program Standards and regulations and to establish mechanisms for coordination at State and local levels. The Secretary of Labor has joined with the Director of the Office of Economic Opportunity and the Secretary of Health, Education, and Welfare in approving these Standards. Accordingly, this document sets forth Federal Interagency Requirements which day care programs must meet if they are receiving funds under any of the following programs:

Title IV of the Social Security Act

Part A--Aid to Families With Dependent Children

Part B--Child Welfare Services

Title I of the Economic Opportunity Act--Youth Programs

Title II of the Economic Opportunity Act--Urban and Rural Community Action Programs

Title III of the Economic Opportunity Act

Part B--Assistance for Migrant, and other Seasonally Employed, Farmworkers and Their Families (These Federal Interagency Requirements will not apply in full to migrant programs until July 1, 1969.)

Title V of the Economic Opportunity Act

Part B--Day Care Projects

Manpower Development and Training Act

Title I of the Elementary and Secondary Education Act (Programs funded under this title may be subject to these Requirements at the discretion of the State and local education agencies administering these funds.)

These Requirements will be supplemented by a series of Federal Interagency Recommendations which are not mandatory but represent highly desirable objectives. The Requirements and Recommendations taken together constitute the Federal Interagency Day Care Standards.

As a condition for Federal funding, agencies administering day care programs must assure that the Requirements are met in all facilities which the agencies establish, operate, or utilize with Federal support. If a facility does not provide all of the required services, the administering agency must assure that those that are lacking are otherwise provided.

Administering agencies must develop specific requirements and procedures within the framework of the Federal Interagency Requirements and Recommendations to maintain, extend, and improve their day care services. Additional standards developed locally may be higher than the Federal Requirements and must be at least equal to those required for licensing or approval as meeting the standards established for such licensing. Under no circumstances, may they be lower. It is the intent of the Federal Government to raise and never to lower the level of day care services in any State.

The Interagency Requirements will be utilized by Federal agencies in the evaluation of operating programs.

Application of Requirements

These Requirements cover all day care programs and facilities utilized by the administering agencies which receive Federal funds, whether these facilities are operated directly by the administering agencies or whether contracted to other agencies. Such programs and facilitie must also be licensed or meet the standards of licensing applicable in the State. Day care may be provided:

In a day care facility operated by the administering agency.

In a day care facility operated by a public, voluntary, or proprietary organization which enters into a contract to accept children from the administering agency and to provide care for them under the latter's policies. (The operating organization may also serve children who are not supported by the administering agency.)

Through some other contractual or other arrangement, including the use of an intermediary organization designed to provide coordinated day care services, or the use of facilities provided by employers, labor unions, or joint employer-union organizations.

Through the purchase of care by an individual receiving aid to families with dependent children or child welfare services funds for the service.

Waiver of Requirements

Requirements can be waived when the administering agency can show that the requested waiver may advance innovation and experimentation and extend services without loss of quality in the facility. Waivers must be consistent with the provisions of law. Requests for waivers should be addressed to the regional office of the Federal agency which is providing the funds. Requirements of the licensing authority in a State cannot be waived by the Federal regional office.

Effective Date of Requirements

The Requirements apply to all day care programs initially funded and to those refunded after July 1, 1968. Administering agencies are expected to immediately initiate planning and action to achieve full compliance within a reasonable time. Except where noted, up to 1 year may be allowed for compliance provided there is evidence of progress and good intent to comply.

Enforcement of Requirements

The basic responsibility for enforcement of the Requirements lies with the administering agency. Acceptance of Federal funds is an agreement to abide by the Requirements. State agencies are expected to review programs and facilities at the local level for which they have responsibility and make sure that the Requirements are met. Noncompliance may be grounds for suspension or termination of Federal funds.

The Federal agencies acting in concert will also plan to review the operation of selected facilities.

COMPREHENSIVE AND COORDINATED SERVICES

The material which follows is, for convenience, arranged according to certain categories of activities or service. Day care works well, however, only when there is a unity to the program. The educator must be concerned with health matters, the nurse with social service activities, and the parent coordinator with helping professionals. Program design must take into account these complex interrelationships.

I. DAY CARE FACILITIES

A. Types of Facilities

It is expected that a community program of day care services will require more than one type of day care facility if the particular needs of each child and his parents are to be taken into consideration. Listed below are the three major types of day care facilities to which the Federal Requirements apply. They are defined in terms of the nature of care offered. While it is preferable that the three types of facilities be available, this is not a Requirement.

1. The family day care home serves only as many children as it can integrate into its own physical setting and pattern of living. It is especially suitable for infants, toddlers, and sibling groups and for neighborhood-based day care programs, including those for children needing after-school care. A family day care home may serve no more than six children (3 through 14) in total (no more than five when the age range is infancy through 6), including the family day care mother's own children.

2. The group day care home offers family-like care, usually to school-age children, in an extended or modified family residence. It utilizes one or several employees and provides care for up to 12 children. It is suitable for children who need before- and after-school care, who do

not require a great deal of mothering or individual care, and who can profit from considerable association with their peers.

3. The day care center serves groups of 12 or more children. It utilizes subgroupings on the basis of age and special need but provides opportunity for the experience and learning that accompanies a mixing of ages. Day care centers should not accept children under 3 years of age unless the care available approximates the mothering in the family home. Centers do not usually attempt to simulate family living. Centers may be established in a variety of places: private dwellings, settlement houses, schools, churches, social centers, public housing units, specially constructed facilities, etc.

B. Grouping of Children

Interagency Requirements

The administering agency, after determining the kind of facility to be used, must ensure that the following limits on size of groups and child-to-adult ratios are observed. All new facilities must meet the requirements prior to Federal funding. Existing programs may be granted up to 3 years to meet this requirement, if evidence of progress and good intent is shown.

1. Family day care home [1]

   a. Infancy through 6 years. No more than two children under 2 and no more than five in total, including the family day care mother's own children under 14 years old.

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[1] In the use of a family day care home, there must always be provision for another adult on whom the family day care mother can call in case of an emergency or illness.

There are circumstances where it would be necessary to have on a regular basis two adults in a family day care home; for example, if one or more of the children were retarded, emotionally disturbed, or handicapped and needed more than usual care.

The use of volunteers is very appropriate in family day care. Volunteers may include older children who are often very successful in working with younger children when under adequate supervision.

b. Three through 14 years. No more than six children, including the family day care mother's children under 14 years old.

2. Group day care home [2]

   a. Three through 14 years. Groups may range up to 12 children but the child-staff ratio never exceeds 6 to 1. No child under 3 should be in this type of care. When preschool children are cared for, the child-staff ratio should not exceed 5 to 1.

3. Day care center [3]

   a. Three to 4 years. No more than 15 in a group with an adult and sufficient assistants, supplemented by volunteers, so that the total ratio of children to adults is normally not greater than 5 to 1.

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[2] Volunteers and aides may be used to assist the adult responsible for the group. Teenagers are often highly successful in working with younger children, but caution should be exercised in giving them supervisory responsibility over their peers.

As in family day care, provision must be made for other adults to be called in case of an emergency or illness.

[3] The adult is directly responsible for supervising the daily program for the children in her group and the work of the assistants and volunteers assigned to her. She also works directly with the children and their parents, giving as much individual attention as possible.

Volunteers may be used to supplement the paid staff responsible for the group. They may include older children who are often highly successful in working with younger children. Caution should be exercised in assigning teenagers supervisory responsibility over their peers.

b. Four to 6 years. No more than 20 in a group with an adult and sufficient assistants, supplemented by volunteers, so that the total ratio of children to adults is normally not greater than 7 to 1.

c. Six through 14 years. No more than 25 in a group with an adult and sufficient assistants, supplemented by volunteers, so that the total ratio of children to adults is normally not greater than 10 to 1.

Federal Interagency Requirements have not been set for center care of children under 3 years of age. If programs offer center care for children younger than 3, State licensing regulations and requirements must be met. Center care for children under 3 cannot be offered if the State authority has not established acceptable standards for such care.

C. Licensing or Approval of Facilities as Meeting the Standards for Such Licensing

Interagency Requirements

Day care facilities (i.e., family day care homes, group day care homes, and day care centers) must be licensed or approved as meeting the standards for such licensing. If the State licensing law does not fully cover the licensing of these facilities, acceptable standards must be developed by the licensing authority or the State welfare department and each facility must meet these standards if they are to receive Federal funds.

II. ENVIRONMENTAL STANDARDS

A. Location of Day Care Facilities

Interagency Requirements

1. Members of low-income or other groups in the population and geographic areas who (a) are eligible under the regulations of the funding agency and (b) have the greatest relative need must be given priority in the provision of day care services.

2. In establishing or utilizing a day care facility, all the following factors must be taken into consideration: 4/

   a. Travel time for both the children and their parents.

   b. Convenience to the home or work site of parents to enable them to participate in the program.

   c. Provision of equal opportunities for people of all racial, cultural, and economic groups to make use of the facility.

   d. Accessibility of other resources which enhance the day care program.

   e. Opportunities for involvement of the parents and the neighborhood.

3. Title VI of the Civil Rights Act of 1964 requires that services in programs receiving Federal funds are used and available without discrimination on the basis of race, color, or national origin.

B. Safety and Sanitation

Interagency Requirements

1. The facility and grounds used by the children must meet the requirements of the appropriate safety and sanitation authorities.

2. Where safety and sanitation codes applicable to family day care homes, group day care homes, or day care centers do not exist or are not being implemented, the operating agency or the administering agency must work with the appropriate safety and sanitation authorities to secure technical advice which will enable them to provide adequate safeguards.

4/ No universal requirements can be established to govern every local situation. There must, however, be consideration of each of these factors in light of the overall objectives of the day care program and the legal requirements which exist, such as title VI of the Civil Rights Act of 1964 and title IV, part B, of the Social Security Act.

C. Suitability of Facilities

Interagency Requirements

1. Each facility must provide space and equipment for free play, rest, privacy, and a range of indoor and outdoor program activities suited to the children's ages and the size of the group. There must be provisions for meeting the particular needs of those handicapped children enrolled in the program. Minimum requirements include:

    a. Adequate indoor and outdoor space for children, appropriate to their ages, with separate rooms or areas for cooking, toilets, and other purposes.

    b. Floors and walls which can be fully cleaned and maintained and which are nonhazardous to the children's clothes and health.

    c. Ventilation and temperature adequate for each child's safety and comfort.

    d. Safe and comfortable arrangements for naps for young children.

    e. Space for isolation of the child who becomes ill, to provide him with quiet and rest and reduce the risk of infection or contagion to others.

III. EDUCATIONAL SERVICES

Interagency Requirements

1. Educational opportunities must be provided every child. Such opportunities should be appropriate to the child's age regardless of the type of facility in which he is enrolled, i.e., family day care home, group day care home, or day care center.

2. Educational activities must be under the supervision and direction of a staff member trained or experienced in child growth and development. Such supervision may be provided from a central point for day care homes.

3. The persons providing direct care for children in the facility must have had training or demonstrated ability in working with children.

4. Each facility must have toys, games, equipment and material, books, etc., for educational development and creative expression appropriate to the particular type of facility and age level of the children.

5. The daily activities for each child in the facility must be designed to influence a positive concept of self and motivation and to enhance his social, cognitive, and communication skills. 5/

IV. SOCIAL SERVICES

Interagency Requirements

1. Provision must be made for social services which are under the supervision of a staff member trained or experienced in the field. Services may be provided in the facility or by the administering or operating agency.

2. Nonprofessionals must be used in productive roles to provide social services.

3. Counseling and guidance must be available to the family to help it determine the appropriateness of day care, the best facility for a particular child, and the possibility

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5/ For school-age children, it is desirable that the policies at the day care facility be flexible enough to allow the children to go and come from the day care facility in accordance with their ability to become independent and to accept appropriate responsibility. School-age children also must have opportunities to take part in activities away from the day care facility and to choose their own friends.

The day care staff must keep in mind that for school-age children the school is providing the formal educational component. The day care staff are more nearly "parent supplements." They have responsibility, however, to supervise homework and broaden the children's educational, cultural, and recreational horizons.

of alternative plans for care. The staff must also develop effective programs of referral to additional resources which meet family needs.

4. Continuing assessment must be made with the parents of the child's adjustment in the day care program and of the family situation.

5. There must be procedures for coordination and cooperation with other organizations offering those resources which may be required by the child and his family.

6. Where permitted by Federal agencies providing funds, provision should be made for an objective system to determine the ability of families to pay for part or all of the cost of day care and for payment.

V. HEALTH AND NUTRITION SERVICES

Interagency Requirements

1. The operating or administering agency must assure that the health of the children and the safety of the environment are supervised by a qualified physician. 6/

2. Each child must receive dental, medical, and other health evaluations appropriate to his age upon entering day care and subsequently at intervals appropriate to his age and state of health. 7/

3. Arrangements must be made for medical and dental care and other health related treatment for each child using existing

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6/ While nurses or others with appropriate training and experience may plan and supervise the health aspects of a day care program, the total plan should be reviewed by a pediatrician or a physician especially interested in child health. Ideally, such a physician should participate in planning the total day care program and should be continuously involved as the program is carried out. Consultation on technical safety and environmental matters may be provided by other specialists. Individual health evaluations and medical and dental care should be carried out only by highly qualified physicians and dentists.

7/ If the child entering day care has not recently had a comprehensive health evaluation by a physician, this should be provided promptly after he enters a day care program.

community resources. In the absence of other financial resources, the operating or administering agency must provide, whenever authorized by law, such treatment with its own funds. 8/

4. The facility must provide a daily evaluation of each child for indications of illness.

5. The administering or operating agency must ensure that each child has available to him all immunizations appropriate to his age.

6. Advance arrangements must be made for the care of a child who is injured or becomes ill, including isolation if necessary, notification of his parents, and provisions for emergency medical care or first aid.

7. The facility must provide adequate and nutritious meals and snacks prepared in a safe and sanitary manner. Consulation should be available from a qualified nutritionist or food service specialist.

8. All staff members of the facility must be aware of the hazards of infection and accidents and how they can minimize such hazards.

8/ Because day care is designed to supplement parental care and strengthen families, the agency should help parents to plan and carry out a program for medical and dental care for the children. Agencies should not make the arrangements unless the parents are unable to do so. The agency should help to find funds and services and help parents to make use of these resources. Such help may include making appointments; obtaining transportation; giving reminders and checking to be sure appointments are kept, prescriptions filled, medication and treatments administered. Educational programs and social services should be available to help families carry out health plans.

The day care agency, however, in those instances where the Federal funds are legally available to be expended for health services, has the ultimate responsibility of ensuring that no child is denied health services because his parents are unable to carry out an adequate health plan. Aid to families with dependent children and child welfare services funds are not legally available for health care, but States are encouraged to use Medicaid funds whenever possible.

9. Staff of the facility and volunteers must have periodic assessments of their physical and mental competence to care for children. 9/

10. The operating or administering agency must ensure that adequate health records are maintained on every child and every staff member who has contact with children.

VI. TRAINING OF STAFF

Interagency Requirements

1. The operating or administering agency must provide or arrange for the provision of orientation, continuous inservice training, and supervision for all staff involved in a day care program -- professionals, nonprofessionals, and volunteers -- in general program goals as well as specific program areas; i.e., nutrition, health, child growth and development, including the meaning of supplementary care to the child, educational guidance and remedial techniques, and the relation of the community to the child. 10/

2. Staff must be assigned responsibility for organizing and coordinating the training program. 11/

9/ Tuberculin tests or chest X-rays should ensure that all persons having contact with the children are free of tuberculosis. Physical and mental competence are better assured by regular visiting and supervision by competent supervisors than by routine medical tests or examinations.

10/ Special techniques for training of day care mothers in family day care homes may need to be developed. One example of such technique is the use of a "roving trainer" who would have responsibility for working on a continuous basis with several day care mothers in their own homes. Volunteers could also be used as substitutes in family day care homes to allow day care mothers to participate in group training sessions at other locations.

11/ Persons from colleges and universities, public schools, voluntary organizations, professional groups, government agencies, and similar organizations can offer valuable contributions to the total training program.

3. Nonprofessional staff must be given career progression opportunities which include job upgrading and work related training and education.

VII. PARENT INVOLVEMENT

Interagency Requirements

1. Opportunities must be provided parents at times convenient to them to work with the program and, whenever possible, observe their children in the day care facility.

2. Parents must have the opportunity to become involved themselves in the making of decisions concerning the nature and operation of the day care facility.

3. Whenever an agency (i.e., an operating or an administering agency) provides day care for 40 or more children, there must be a policy advisory committee or its equivalent at that administrative level where most decisions are made. 12/ The committee membership should include not less than 50 percent parents or parent representatives, selected by the parents themselves in a democratic fashion. Other members should include representatives of professional organizations or individuals who have particular knowledge or skills in children's and family programs.

4. Policy advisory committees 13/ must perform productive functions, including, but not limited, to:

    a. Assisting in the development of the programs and approving applications for funding.

12/ That level where decisions are made on the kinds of programs to be operated, the hiring of staff, the budgeting of funds, and the submission of applications to funding agencies.

13/ Policy advisory committees, the structure providing a formal means for involving parents in decisions about the program, will vary depending upon the administering agencies and facilities involved.

b. Participating in the nomination and selection of the program director at the operating and/or administering level.

c. Advising on the recruitment and selection of staff and volunteers.

d. Initiating suggestions and ideas for program improvements.

e. Serving as a channel for hearing complaints on the program.

f. Assisting in organizing activities for parents.

g. Assuming a degree of responsibility for communicating with parents and encouraging their participation in the program.

VIII. ADMINISTRATION AND COORDINATION

A. Administration 14/

Interagency Requirements

1. The personnel policies of the operating agency must be governed by written policies which provide for job descriptions, qualification requirements, objective review of grievances and complaints, a sound compensation plan, and statements of employee benefits and responsibilities.

2. The methods of recruiting and selecting personnel must ensure equal opportunity for all interested persons to file an application and have it considered within reasonable criteria. By no later than July 1, 1969, the methods for recruitment and selection must provide for the effective use of nonprofessional positions and for priority in employment to welfare recipients and other low-income people filling those positions.

14/ Where the administering agency contracts for services with private individuals or proprietary organizations, it must include contractual requirements designed to achieve the objectives of this section.

3. The staffing pattern of the facility, reinforced by the staffing pattern of the operating and administering agency must be in reasonable accord with the staffing patterns outlined in the Head Start Manual of Policies and Instructions 15/ and/or recommended standards developed by national standard-setting organizations.

4. In providing day care through purchase of care arrangements or through use of intermediary organizations, the administering agency should allow waivers by the operating agency only with respect to such administrative matters and procedures as are related to their other functions as profit-making or private nonprofit organizations; provided, that in order for substantial Federal funds to be used, such organizations must include provisions for parent participation and opportunities for employment of low-income persons. Similarly, there must be arrangements to provide the total range of required services. All waivers must be consistent with law.

5. The operating or administering agency must provide for the development and publication of policies and procedures governing:

   a. Required program services (i.e., health, education, social services, nutrition, parent participation, etc.) and their integration within the total program.

   b. Intake, including eligibility for care and services, and assurance that the program reaches those who need it.

   c. Financing, including fees, expenditures, budgeting, and procedures needed to coordinate or combine funding within and/or between day care programs.

   d. Relations with the community, including a system of providing education about the program.

15/ HEAD START CHILD DEVELOPMENT PROGRAM: A Manual of Policies and Instructions. Office of Economic Opportunity, Community Action Program, Washington D.C. 20506. September 1967.

e. Continuous evaluation, improvement, and development of the program for quality of service and for the expansion of its usefulness.

f. Recording and reporting of information required by State and Federal agencies.

6. The administering and operating agencies and all facilities used by them must comply with title VI of the Civil Rights Act of 1964, which requires that services in programs receiving Federal funds are used and available without discrimination on the basis of race, color, or national origin.

B. COORDINATION

Interagency Requirements

1. Administering agencies must coordinate their program planning to avoid duplication in service and to promote continuity in the care and service for each child.

2. State administering agencies have a responsibility to develop procedures which will facilitate coordination with other State agencies and with local agencies using Federal funds.

3. Agencies which operate more than one type of program, e.g., a group day care home as well as day care center program, are encouraged to share appropriate personnel and resources to gain maximum productivity and efficiency of operation.

IX. EVALUATION

Interagency Requirements

1. Day care facilities must be periodically evaluated in terms of the Federal Interagency Day Care Standards.

2. Local operators must evaluate their own program activities according to outlines, forms, etc., provided by the operating and administering agencies. This self-evaluation must be periodically planned and scheduled so that results of evaluation can be incorporated into the preparation of the succeeding year's plan.

APPENDIX C

LEGISLATIVE HISTORY OF THE FIDCR

LEGISLATIVE HISTORY
FEDERAL INTERAGENCY DAY CARE REQUIREMENTS AND
TITLE XX DAY CARE REQUIREMENTS

Legislative Authority in the Economic Opportunity Act — 1968 FIDCR

Economic Opportunity Amendments of 1967
Public Law 90-222, sec. 107(a) (Dec. 23, 1967) — 42 USC 2932(d)

- Added sec. 522(d) to the Economic Opportunity Act of 1964, which directed the Secretary of Health, Education, and Welfare and the Director of the Office of Economic Opportunity to establish a common set of day care program standards and regulations.

Economic Opportunity Amendments of 1972
Public Law 92-424, sec. 19 (Sept. 19, 1972)

- Added to the original FIDCR mandate the condition that "such standards [for day care programs] must be no less comprehensive than" the 1968 FIDCR.

Community Services Act of 1974
Public Law 93-644, sec. 8(b) (Jan. 4, 1975)

- Removed the word "Director" (of the Office of Economic Opportunity) from the FIDCR mandate, making the Secretary of Health, Education, and Welfare solely responsible for carrying it out.

Legislative Authority in Title XX of the Social Security Act: — Title XX FIDCR

Social Services Amendments of 1974
Public Law 93-647, sec. 2 (Jan. 4, 1975)

- Established Title XX of the Social Security Act.
- Incorporated a modified form of FIDCR as funding requirements for day care services, sec. 2002(a)(9)(A) of Title XX. — 42 USC 1397a

- Sec. 2002(a)(9)(B) called for report of appropriateness of the requirements imposed by subparagraph (A) and gave Secretary of Health, Education, and Welfare authority to change the requirements.

- Sec. 2002(a)(9)(C) specifically superseded the requirements of sec. 522(d) of the Economic Opportunity Act, the original FIDCR mandate.

- Sec. 3(f) of Public Law 93-647 imposed the requirements of sec. 2002(a)(9)(A) on Title IV-A and IV-B (Social Security Act) day care services, superseding requirements of sec. 522(d) of the Economic Opportunity Act.

Public Law 94-120, sec. 3 (Oct. 21, 1975)

- Suspended FIDCR staffing standards for children aged 6 weeks to 6 years, under certain conditions, effective to February 1976.

Public Law 94-401, sec. 2 (Sept. 7, 1976)

- Sec. 2 extended suspension of staffing standards to Sept. 30, 1977.

- Sec. 3 provided an additional $40 million in Title XX funds at 100 percent match for day care services for the period July 1 to Sept. 30, 1976, and an additional $200 million, under the same provision, for the period Oct. 1, 1976, to Sept. 30, 1977.

- Sec. 5 permitted waiving of staffing standards when fewer than 20 percent Title XX children are in care.

- Sec. 5 determined that in calculating the child-staff ratio for family day care homes, the number of children in care shall include the children of the caregiver under 6 years of age.

Public Law 95-171 (Nov. 12, 1977)

- Sec. 1(a) made an additional $200 million in Title XX funds available at 100 percent match for day care services for the period Oct. 1, 1977, to Sept. 30, 1978.

- Sec. 1(b) extended provision for calculation of child-staff ratio in family day care homes to Sept. 30, 1978.

- Sec. 1(d) extended suspension of staffing standards to Sept. 30, 1978.